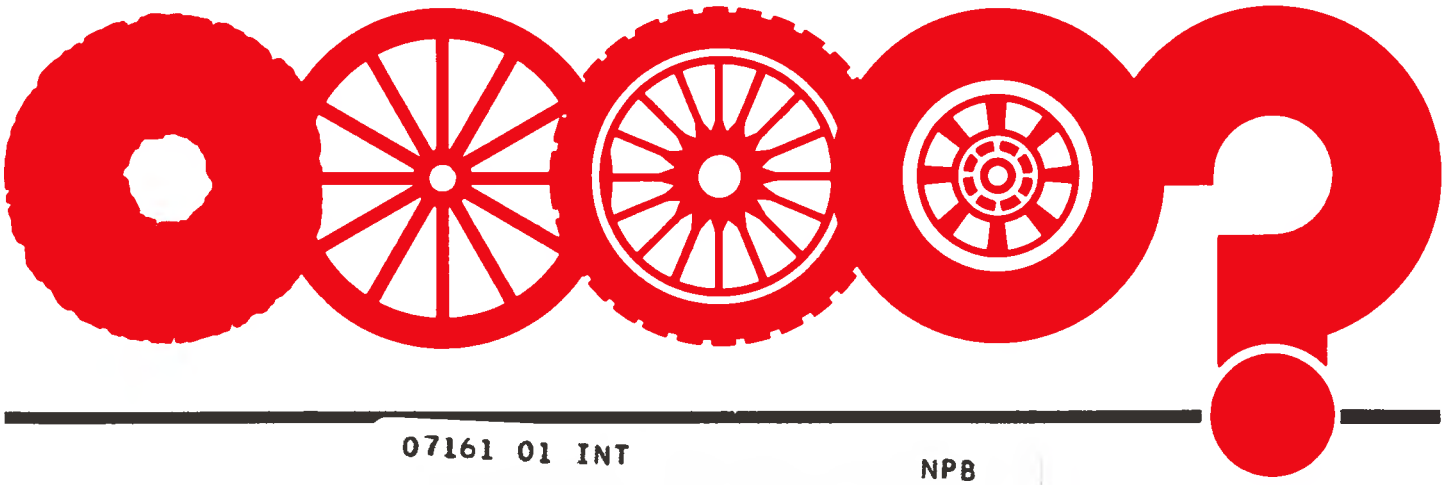
new products bulletin

Bulletin 309, October 1981

bulletin de produits nouveaux

Bulletin 309, Octobre 1981



new products bulletin

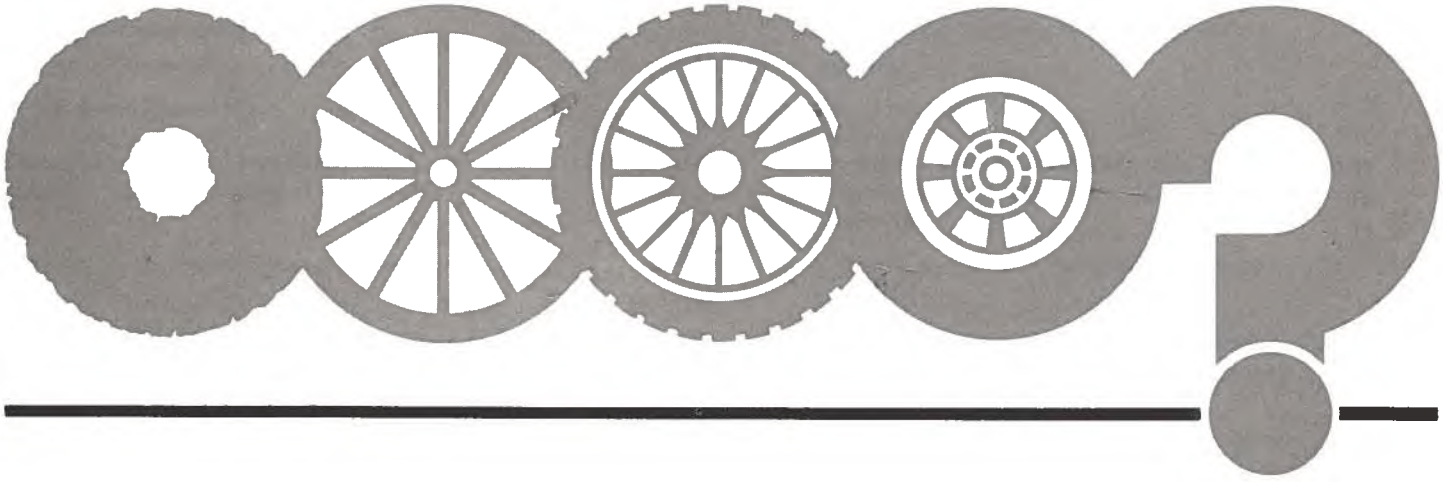
bulletin de produits nouveaux

This monthly bulletin is published to inform Canadian industry of licensing and joint venture opportunities that may be investigated for the purpose of forming manufacturing affiliations. The Department cannot assume any responsibility for claims made or for transactions which ensue from the publication of any items in this bulletin. If you are interested in any of the proposals you should contact the correspondent identified with the item and send a copy of your initial correspondence to the Canadian Government Trade Commissioner responsible for the area at the address indicated, in order that he can provide appropriate assistance or commercial information.

The Licensing Opportunities Section (34/3) of the BUSINESS CENTRE of the Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5 (Telephone: (613) 995-5771) should be advised of any agreements concluded as a result of this publicity.

Publié tous les mois, le présent bulletin a pour objet d'informer l'industrie canadienne des occasions de fabrication sous licence et d'entreprises en participation qu'il est possible d'étudier aux fins de constituer des affiliations manufacturières. Le Ministère ne peut assumer aucune responsabilité à l'égard des réclamations ou transactions découlant de la publication d'articles dans le présent bulletin. Si l'une ou l'autre des propositions vous intéresse, auriez-vous l'obligeance de communiquer avec le correspondant et transmettre copie de votre premier échange de correspondance au délégué commercial du Gouvernement du Canada qui s'occupe de la région en cause, à l'adresse indiquée, afin qu'il puisse vous fournir l'aide ou les renseignements commerciaux pertinents.

Prière d'informer la Section des possibilités de licences (34/3), du CENTRE DES ENTREPRISES, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5 (tél. (613) 995-5771), de toute entente intervenue à la suite de la présente publicité.



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Selected Licensing or Joint Venture Manufacturing Opportunities

Dehulling of Rapeseed or Mustard Defatted Meals/309

The process fractionates rapeseed or mustard meals into high purity flour and hulls and provides greater oil extraction. Write: Case 6317, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Deuterated-Water-Content Glass Fiber/309

A process for producing O-H free glass having the structural characteristics of O-H content glass and in which the presence of a number of O-H groups are substituted by O-D groups. Write: Case 6356, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Microwave Ovens with Improved Efficiency of Energy Conversion and Heating Uniformity/309

A frequency control system which insures low power reflection from the cavity and improved heating uniformity for all types of loads. As a result, losses due to poor impedance match between magnetron and the loaded cavity are greatly reduced. However, specific heating patterns can be exicted in the cavity by selecting particular frequencies. Write: Case 6386, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Impulse Transformers/309

Very simple and very inexpensive technique to make a small transformer with excellent rise time characteristics, high peak and high average power handling capabilities. Write: Case 7059, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Sélection d'occasions de fabrication sous licence ou d'entreprises en participation

Purification des semoules dégraissées de colza et de moutarde/309

Le procédé permet de fractionner les semoules de colza et de moutarde en farine de haute pureté et en téguments, ce qui permet une meilleure extraction d'huile. Écrire: Cas 6317, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Fibre de verre au deutérium/309

Procédé de fabrication de verre exempt de O-H, avant les caractéristiques structurales d'un verre à O-H, dans lequel un certain nombre de groupements O-H sont remplacés par des groupements O-D. Écrire: Cas 6356, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Fours à micro-ondes plus efficaces (moindre consommation d'énergie et meilleure uniformité de chauffage)/309

Système de régulation de la fréquence assurant une moindre réflexion de l'énergie de la cavité et une meilleure uniformité de chauffage pour tous les types de charge. De ce fait, les pertes dues au mauvais appariement d'impédances entre le magnétron et la cavité chargée sont très réduites. Toutefois, on peut obtenir des modes spécifiques de chauffage dans la cavité en choisissant des fréquences particulières. Écrire: Cas 6386, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Transformateurs à impulsions/309

Technique très simple et très économique pour fabriquer un petit transformateur ayant d'excellentes caractéristiques de réaction et de fortes puissance de pointe et puissance moyenne. Écrire: Cas 7059, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Stable Fiber Optic Hydrophone/309

It consists of a single optical fiber with one or more sensing portions built in, each of which responds to variations in acoustical pressure incident thereon. As a result interfering light beams in each sensing portion enables the extraction of an identifiable output signal. Write: Case 7085, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Hydrophone stable à fibre optique/309

L'appareil est constitué d'une seule fibre optique contenant une ou plusieurs parties sensibles répondant aux variations de pression acoustique qu'elles subissent. De ce fait, des faisceaux lumineux interférant dans chaque partie sensible permettent d'obtenir un signal de sortie identifiable. Écrire: Cas 7085, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Low Drag Low Weight Towed Target/309

A modular target practice device for towing behind an aircraft which is easily adaptable to various sizes of lunenberg lenses and cluster corner reflectors. Low drag and low weight permit the use of lighter cables and smaller towing aircraft and result in greatly reduced operating costs. Write: Case 7184, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Cible remorquée de faible masse et à faible résistance/309

Cible modulaire tirée par un avion, facilement adaptable pour diverses dimensions de lunettes Lunenberg et différents réflecteurs. La faible masse et la faible résistance permettent d'utiliser des câbles légers et de plus petits avions, ce qui réduit le coût considérablement. Écrire: Cas 7184, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Soda Lime Half Life Indicator/309

A device which through constant monitoring of the capacity of soda lime to absorb CO_2, indicates when half of the total capacity is reached. Write: Case 7204, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Indicateur d'épuisement de la moitié de la capacité de la chaux/309

Dispositif qui, en surveillant constamment la capacité de la chaux d'absorber le CO_2, indique le moment où la moitié de la capacité totale a été épuisée. Écrire: Cas 7204, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Handwriting Verification Device/309

A handwriting position and force sensing device comprising a rigid plate mounted on three pressure sensing devices positioned at the corners of a triangle such that when the plate is written upon, pressure signals are obtained from the pressure sensing devices that can be used to record, analyse, verify or validate the handwriting. Write: Case 7226, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Appareil pour vérifier l'écriture/309

Appareil de mesure de la position de la main et de la force appliquée pour écrire, constitué d'une plaque montée sur trois capteurs de pression montés aux coins d'un triangle, de sorte que lorsque l'on écrit sur la plaque, les signaux de pression reçus des trois capteurs permettent d'enregistrer, d'analyser, de vérifier et de valider l'écriture. Écrire: Cas 7226, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Gaseous Reagent Generator/309

Inexpensive, reliable "on demand" technique to produce a gas from a chemical reaction where at least one of the reactants is a liquid and at least one of the reactants is a

Générateur de réactif gazeux/309

Technique bon marché et fiable pour produire "à la demande" un gaz à partir d'une réaction chimique lorsqu'un des réactifs au moins est liquide et un au moins est solide.

solid. The gas is adequately pure and available in sufficient flow rates and partial pressures suitable for many applications such as chemical lasers. Write: Case 7234, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Le gaz est suffisamment pur, en quantité suffisante et à des pressions partielles convenant à de nombreuses applications et en particulier aux lasers chimiques. Écrire: Cas 7234, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

A DC-Side Commutated Inverter/309

A novel and reliable DC-side commutated inverter having relatively few components which does not suffer from shoot-through problems. Major applications are in variable speed (pulse width modulated) induction motor drives, uninterruptible power supplies and DC choppers for traction drives. Write: Case 7300, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Onduleur à commutation du côté C.C./309

Nouvel onduleur fiable à commutation du côté C.C. ayant relativement peu d'éléments et ne souffrant pas des problèmes de "shoot-through". Les principales applications sont: entraînements de moteur à induction à vitesse variable (largeur d'impulsion modulée), alimentation électrique impossible à couper et hacheurs de C.C. pour entraînements de traction. Écrire: Cas 7300, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Quick Thawing Device for Frozen Blood Plasma/309

A microwave apparatus that, with gentle agitation, quickly thaws and heats single containers of frozen blood plasma or intravenous admixtures. A temperature sensor, contacting the plastic bag, accurately controls the temperature of the contents to prevent heat degradation. Write: Case 7345, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Dispositif de fusion rapide du plasma sanguin congelé/309

Appareil à micro-ondes, avec légère agitation, permettant de décongeler et de réchauffer des contenants individuels de plasma sanguin ou de mélanges intraveineux. Un capteur de température, en contact avec le sac de plastique, contrôle avec précision la température du contenu pour prévenir toute dégradation. Écrire: Cas 7345, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Passive Fiber Optic Data Bus Configurations/309

This invention relates to optical data buses for interconnecting terminals. The arrangement uses hybrid reflection-transmission star couplers. Terminals can be connected to reflection ports of the hybrid couplers while the couplers can be interconnected by the transmission ports thereof. A small number of fibers are required to interconnect a large number of terminals. Write: Case 7366, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Configurations de collecteurs passifs de données à fibres optiques/309

Cette invention touche des collecteurs de données optiques pour relier des terminaux. L'arrangement utilise des coupleurs hybrides réflexion/transmission. Les terminaux peuvent être connectés aux sorties réflexion des coupleurs hybrides tandis que les coupleurs peuvent être reliés par la sortie transmission. Il suffit d'un petit nombre de fibres pour relier un grand nombre de terminaux. Écrire: Cas 7366, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Under-Ride Device/309

British manufacturer of a registered design for an under-ride device for commercial vehicles offers the Canadian

Dispositif de sécurité/309

Un fabricant britannique a conçu un dispositif de sécurité enregistré destiné aux véhicules commerciaux. Il offre les

manufacturing and North American marketing rights to a Canadian company having technical, manufacturing and marketing facilities allied to the automotive industry. Used mainly on trucks and trailers, the device reduces impact damage on vehicles under-running the rear of trucks and trailers as well as being beneficial as a cushioning stop when a long vehicle is being manoeuvered into a dock or loading bay. The device will deflect inward and outward thus enabling the negotiation of loading ramps and roll on/roll off facilities involving ramps of varying degrees of inclination. The device is patented in the U.K., West Germany, Belgium, Holland and Italy. Its design has been registered, with lighting panel, in the U.K., West Germany, Benelux and France; without the lighting panel in the U.K., Italy, Denmark and Sweden, Canada and the U.S. It has been tested and type-approved to meet EEC road safety regulations for vehicles 16 tonnes and over, 7-16 tonnes and 3½-7 tonnes. The product is a major safety device and is both economic in the use of materials and in servicing costs. It reduces the risk of injury to passengers in cars in accident conditions. It also meets EEC legislation and is readily fitted to all types of chassis construction used by the commercial vehicle industry. (See illustration page 59.) Write: Mr. W. Waite, Rubery Owen Group Services Limited, Darlaston, P.O. Box 10, Wednesbury, West Midlands WS10 8JD, England and send a copy of your initial correspondence to the Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

droits de commercialisation en Amérique du Nord et de fabrication au Canada à une compagnie canadienne qui dispose des installations de fabrication et de commercialisation connexes à l'industrie automobile. Ce dispositif est utilisé essentiellement sur les camions et les remorques. Il réduit les dommages dûs à l'impact en cas de collision arrière lorsque l'autre véhicule passe sous le camion ou la remorque. Il amortit aussi l'arrêt quand un véhicule long manoeuvre vers un quai ou une plate-forme de chargement. Le dispositif se déforme vers l'intérieur ou vers l'extérieur et permet ainsi de négocier les rampes de chargement et l'entrée ou la sortie sur des plans d'inclinaison variable. Il est breveté au Royaume-Uni, en Allemagne de l'Ouest, en Belgique, en Hollande et en Italie. Le modèle a été enregistré avec un panneau d'éclairage au Royaume-Uni, en Allemagne de l'Ouest, au Bénélux et en France. Sans le panneau d'éclairage, il est enregistré au Royaume-Uni, en Italie, au Danemark, en Suède, au Canada et aux États-Unis et il a été essayé et approuvé conformément aux règlements sur la sécurité routière EEC pour les véhicules de 16 tonnes et plus, de 7 à 16 tonnes et de 3½ à 7 tonnes. Il s'agit d'un dispositif sécuritaire important et il est économique à la fois pour la construction et l'entretien. Il réduit les risques de blessure aux passagers des véhicules accidentés. Il répond également aux règlements EEC et peut se poser sous tous les types de châssis utilisés dans l'industrie des véhicules commerciaux. (Voir illustration page 59.) Écrire à M. W. Waite, Rubery Owen Group Services Limited, Darlaston, P.O. Box 10, Wednesbury, West Midlands WS10 8JD (Angleterre) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Haut-commissariat du Canada, 1 Grosvenor Square, Londres W1X 0AB (Angleterre).

Structural Panels/309

Austrian company offers licensing rights to a Canadian firm to manufacture and market its patented aluminum structural panels which incorporate textured sheet metal specially developed for curtain walls. In addition to the well known advantages offered by aluminum, such as decorative appearance, light weight, weather resistant and low maintenance, the structural panels offer the advantages of further reduced weight, quick and simple assembly and reduced costs compared with conventional curtain wall panels. The textured sheet metal can be used for other architectural applications such as storefronts, facings, door panels and interior decoration. This enquiry is most likely to be of interest to companies having an aluminum rolling mill for sheets measuring 1500 mm x 3000 mm and 3-5 mm thick. Surface treatment facilities are also required. The system utilizes aluminum sheet grades 99.3, 99.5 and 99.7. Write: Mr. Reinhard Heiss, Alu-Stahl-Metallbau GmbH, Mittelgasse 23, A-1060 Vienna, Austria and send copy of your initial correspondence to Commercial Division, Canadian Embassy, Luegerring 10, 1010 Vienna, Austria.

Panneaux décoratifs/309

Une société autrichienne offre à une entreprise canadienne les droits de licence en vue de la fabrication et de la mise en marché de ses panneaux d'aluminium décoratifs brevetés, caractérisés par une tôle travaillée formant un mur-rideau. Outre les avantages bien connus de l'aluminium touchant notamment l'esthétique, la légèreté, la résistance à la corrosion et la facilité d'entretien, ces panneaux décoratifs sont encore plus légers, d'un montage simple et rapide tout en étant moins coûteux que les murs-rideaux classiques. La tôle travaillée peut également servir à d'autres applications architecturales, soit par exemple les façades commerciales, les parements, les panneaux de porte et la décoration intérieure. Cette offre s'adresse plus particulièrement aux entreprises qui possèdent un laminoir susceptible de traiter des tôles d'aluminium de 1500 mm x 3000 mm, d'une épaisseur de 3 à 5 mm. Par ailleurs, la fabrication exige une installation de traitement superficiel. L'aluminium utilisé est de type 99.3, 99.5 et 99.7. Écrire à: M. Reinhard Heiss, Alu-Stahl Metallbau GmbH, Mittelgasse 23, A-1060 Vienne (Autriche) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Luegerring 10, 1010 Vienne (Autriche).

Combination Stove/Fireplace/Barbecue/309

Danish designer, in cooperation with the Belgian manufacturer Bodart & Gonay SPRL, offers the Canadian manufac-

Poêle, foyer et barbecue combinés/309

Un concepteur danois, en collaboration avec un fabricant belge, Bodart et Gonay sprl, offre les droits de fabrication

turing and North American marketing rights for his award winning line of "Arreso" open fires, combined stoves and barbecues. The "Arreso" stove system has been redesigned as a built up system which allows the user to install a stove and later add recuperators, hot rooms and accessories. The hexagonal and cylindrical systems represent over 30 possible combinations of open fires and stoves; are made of sheet steel and/or cast iron; burn wood, briquettes, charcoal or coal and some models include a grill, screen, barbecue and floor plate while others feature recuperators, hot rooms, base-plates, grills, screens, barbecues, spits, floor plates, etc. (See illustration page 60.) Write: Mr. Michel de la Bruyere Vincent, Director of Arreso Form Danmark, Design & Construction, c/o Bodart et Gonay Sprl, 22 Chawieumont, B 4870 Theux, Belgium and send a copy of your initial correspondence to the Commercial Division, Canadian Embassy, rue de Loxum 6, B-1000 Brussels, Belgium.

au Canada et de commercialisation en Amérique du Nord de sa gamme de poêles à feu ouvert *Arreso* qui sont à la fois des poêles, des foyers et des barbecues. Le système *Arreso* est constitué d'éléments indépendants que l'on peut assembler à la demande pour avoir poêle, récupérateur, chauffe-plat et accessoires. Les systèmes hexagonaux et cylindriques représentent plus de 30 combinaisons possibles d'appareils. Fabriqués de tôles d'acier ou de fonte et de brique réfractaire, ils peuvent brûler du bois, des briquettes, du charbon de bois et du charbon. Parmi tous les accessoires, citons: grill, pare-étincelles, tôle de parquet, tourne-broche, etc. (Voir l'illustration page 60.) Écrire à: M. Michel de la Bruyère Vincent, Directeur d'Arreso, a/s de Bodart et Gonay sprl, 22 Chawieumont, B 4870 Theux (Belgique) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 6, rue de Loxum, B-1000 Bruxelles (Belgique).

Collapsible Tubes/309

Australian inventor offers the Canadian manufacturing and unrestricted marketing rights for a novel squeeze tube design on which a patent is pending. The tube has a non-resilient but deformable inner container (e.g. thin plastic) which collapses around the product independently of the outer casing, and a resilient and deformable outer container of plastic similar to that currently used in tubes. In use, both physically and through air pressure developed against the valve, squeeze pressure on the outer tube transfers to the inner liner containing the product. On release of pressure, the outer casing resumes its original shape, while the inner liner remains collapsed around the remaining product. Subsequent squeeze cycles are then always applied to the original shape tube, regardless of remaining contents. Advantages: Compared to current metal and plastic squeeze tubes, the novel tube always delivers an equivalent amount of product with each squeeze regardless of how much product is remaining; it allows more complete product delivery; does not require preliminary 'preworking' to move product to the delivery orifice, prevents ingress of air after part use; can allow visual estimation of remaining contents; always resumes its original shape without becoming unsightly or obliterating labelling; control of the rate of extrusion is easily possible at any angle throughout the life of the tube; will handle any heavy bodied paste normally restricted to collapsible metal tubes; and the liner may have chemical resistance properties when required. Write: Mr. John Axnick, 28 Vincent Street, Sandringham, Victoria 3191, Australia and send a copy of your initial correspondence to the Canadian Consulate General, Princes Gate East Tower, 17th Floor, 151 Flinders Street, Melbourne 3000, Australia. Melbourne 3000, Australia.

Tubes compressibles/309

Un inventeur australien offre à un fabricant canadien les droits de mise en marché, sans restrictions, d'un nouveau tube compressible dont la demande de brevet a été déposée. Le tube est composé d'un contenant interne (par ex. en plastique mince) non élastique, mais déformable, qui s'affaisse contre le produit indépendamment de l'enveloppe externe, et d'un contenant externe élastique et déformable, fait de plastique semblable à celui utilisé dans la fabrication des tubes courants. Pendant l'usage, la pression exercée par le serrage du tube externe et par l'air admis par l'orifice faisant office de clapet antiretour, est transmise au tube interne contenant le produit. Au relâchement du tube, l'enveloppe externe reprend sa forme originale, mais l'envelope interne reste affaissée contre le produit non employé. À chaque utilisation, on presse un tube qui a gardé sa forme originale, quelle que soit la quantité de produit non employé. Voici les avantages de ce tube: lorsqu'on le compare aux tubes souples en métal ou en plastique courants, ce nouveau tube laisse toujours s'écouler une quantité de produit équivalente chaque fois qu'on le presse, quelle que soit la quantité de produit non employé; il permet un écoulement plus complet du produit; il ne nécessite aucune manipulation préalable pour déplacer le produit jusqu'à l'orifice de sortie; il empêche l'air de pénétrer dans le tube après chaque usage; il permet de voir la quantité de produit non employé; il reprend toujours sa forme originale en gardant la même apparence et sans que son étiquette ne soit effacée; il permet une commande facile de l'écoulement du contenu, à tout angle et pendant toute la durée de vie du tube; il convient à toute pâte épaisse normalement réservée aux tubes métalliques souples, et l'enveloppe interne peut être traitée, au besoin, pour résister aux produits chimiques. Écrire à: Monsieur John Axnick, 28 Vincent Street, Sandringham, Victoria 3191 (Australie) et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, Princes Gate East Tower, 17th Floor, 151 Flinders Street, Melbourne 3000 (Australie).

Electrostatic Deposition Apparatus/309

American inventor offers the manufacturing and unlimited marketing rights to a method and means for coating an

Appareil à revêtir électrostatique/309

Un inventeur américain offre les droits illimités de fabrication et de mise en marché d'une technique et de moyens

object with a plastic agent. The method and apparatus applies plastic powder to an article (both metal and non-metal) with a subsequent fusion of the powder into plastic film. Although most benefit of this technology is for coating pipes (both inside and outside at the same time) it can be used in coating of many other items such as: railgards, fence poles, tubes, construction metal materials, etc. This method allows the coating of any size pipe (inside or outside diameter); capital investment is low, the only equipment necessary is an air fan, a closed conduit and an oven for postheating. Know-how and an operable pilot unit are available. Patent No. 4,170,194 has issued in the United States and international patents are pending. Write: Mr. Vladimir N. Etlin, 7403 Lisle Avenue, Falls Church, Virginia 22043 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

servant à revêtir les objets d'une matière plastique. L'appareil applique de la poudre plastique sur un article métallique ou non métallique, la poudre étant ensuite fondue en une pellicule plastique. Même si la plupart des utilisateurs se servent de cette technique pour revêtir des tuyaux (l'intérieur comme l'extérieur d'une seule opération), on peut l'utiliser pour revêtir beaucoup d'autres articles tels que les chasse-pierres, les poteaux de clôture, les tubes, les matériaux de construction métalliques, etc. Cette technique permet le revêtement de tuyaux de tout diamètre (intérieur ou extérieur). L'investissement est peu élevé. Comme équipement, vous n'avez besoin que d'un ventilateur, d'une canalisation fermée et d'un four pour le réchauffage postérieur. L'information pertinente ainsi qu'un appareil pilote sont à votre disposition. Le brevet américain porte le n° 4,170,194 et la demande de brevets internationaux a été déposée. Écrire à: M. Vladimir N. Etlin, 7403 Lisle Avenue, Falls Church (Virginie) 22043 et faire parvenir une copie de votre correspondance initiale au Consulat du Canada, 3 Parkway Building, Suite 1310, Philadelphie, Pennsylvanie 19102 (É.-U.).

Press Brakes/309

British manufacturer offers the Canadian manufacturing and North American marketing rights to its guillotine "Scimitar" shear machine which is patented in Canada, the U.S.A. and 16 other countries. This machine represents a new concept in the cutting and handling of thick plate. It is a guillotine shear but unlike conventional shears, the upper blade never crosses or overlaps the lower blade. The upper blade is also curved and has a rolling action as opposed to a reciprocating one. In combining these three features, plates are easily cut and the offcut produced has dramatically reduced deformation, thus enabling further work to be carried out without any additional straightening of the offcut as would frequently occur with conventional shears. The machine permits a time and financial saving operation. When the machine is fitted with the optional material handling facility, production is almost fully automated resulting in greatly increased output. This machine is used by steel fabricators, shipyards, steel stockholders and heavy plate users. Assistance available will depend on need but the firm is willing to discuss all aspects of a manufacture under license agreement. (See illustration page 59.) Write: Mr. D. Peasant, Export Manager, Rhodes Interform Ltd., Belle Vue, Wakefield, West Yorkshire MF1 5EQ, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Presses-plieuses/309

Un fabricant britannique offre les droits de fabrication au Canada et de commercialisation en Amérique du Nord de sa machine à cisailler "Scimitar", laquelle est brevetée au Canada, aux États-Unis et dans seize autres pays. Cette machine constitue une nouveauté en matière de coupe et de manutention de la tôle épaisse. C'est une cisaille à guillotine, mais, contrairement aux machines traditionnelles, la lame supérieure ne croise ni ne chevauche jamais la lame inférieure. Par ailleurs, la lame supérieure, qui est courbe, est animée d'un mouvement roulant, et non alternatif. Grâce à ces trois particularités, les tôles se coupent facilement et la déformation est considérablement réduite, ce qui permet de passer à l'opération suivante sans redressement de la découpure (contrairement à ce qui se produit souvent avec les cisailles traditionnelles), d'où gain de temps et économie d'argent. Quand la machine est équipée du dispositif facultatif de manutention des matériaux, l'opération est presque entièrement automatisée et la production fortement accrue. Cette machine est employée par les fabricants de produits en acier, les chantiers navals, les dépôts de tôles d'acier et les gros utilisateurs de tôles. L'assistance fournie sera en fonction des besoins, mais la société est disposée à discuter tous les aspects d'une fabrication sous licence. (Voir l'illustration page 59.) Écrire à: M. D. Peasant, Export Manager, Rhodes Interform Ltd., Belle Vue, Wakefield, West Yorkshire MF1 5EQ (Angleterre) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Haut-commissariat du Canada, 1 Grosvenor Square, Londres W1X 0AB (Angleterre).

Blood Arresting and Inflammation Retarding Substance/309

Canadian inventor offers manufacturing and marketing rights to a pharmaceutical manufacturer willing to invest in new manufacturing machinery and testing instruments and to invest in the company set up to hold the patent for a substance for the treatment of wounds, burns, inflammation and irritation to the skin and mucous membranes. It is

Substance hémostatique et anti-inflammatoire/309

Un inventeur canadien offre à un fabricant de produits pharmaceutiques les droits de fabrication et de commercialisation sous licence d'une substance permettant de traiter des blessures, des brûlures, des inflammations et des irritations de la peau et des muqueuses. En échange, ce dernier devra investir dans de nouvelles machineries de

claimed to have anticeptic, analgesic and analeptic effects with the advantage of rapid soothing and healing; is treated as an "investigational drug"; is registered with the Health Protection Branch of Health and Welfare Canada; and has been tested for four years with the result that all required data is available to obtain a drug identification number to initiate commercial production. Several additions to Patent 1,098,828 have been filed and patents are pending in the U.S. and other areas. A limited number of samples will be provided free for testing purposes. Provincial and Federal hospitals will continue to be supplied with unlimited supplies from the prototype laboratory in exchange for individual clinical reports. Write: Mr. James P. Mironivich, 499 Castlefield Avenue, Toronto, Ontario M5N 1L7 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

fabrication et de nouveaux instruments de mesures et sera prêt aussi à investir dans la compagnie établie pour détenir le brevet. Ce produit aurait des propriétés antiseptique, analgésique et analeptique, soulagerait rapidement la douleur et favoriserait la guérison; il s'agit d'un "médicament expérimental" enregistré à la Direction générale de la protection de la santé de Santé et Bien-être Canada. On lui a fait subir, pendant quatre ans des tests qui ont fourni toutes les données nécessaires pour obtenir un numéro d'identification et entreprendre la production commerciale. Plusieurs ajouts au brevet n° 1 098 828 ont été déposés; des demandes de brevets sont toujours en instance aux États-Unis et ailleurs. Un nombre limité d'échantillons sont disponibles gratuitement pour fin d'essais. En échange de rapports cliniques individuels, le laboratoire pilote continuera à envoyer des quantités illimitées de produits aux hôpitaux provinciaux et fédéraux. Écrire à: M. James P. Mironivich, 499 Castlefield Avenue, Toronto (Ontario) M5N 1L7 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Pesticide Tractor/309

Spanish inventors offer a Canadian company the manufacturing and worldwide marketing rights under American and Spanish pending patents for a pesticide tractor that provides a method and means whereby harmful pests which live and breed in the soil and cause harm to crops and humanity in general, may be destroyed by a thermomechanical system. A Conventional tractor provides the means of locomotion or pulling of the thermomechanical system over the ground consisting of a source of electrical and mechanical power; a means for raising and lowering the rotary plough and for adjusting its depth of soil cut; a means for opening and closing the soil outlet door of the furnace; a means for starting and stopping a set of beaters used for comminuting the soil. An insulated electrical furnace mounted on the rear portion of a conventional tractor, provides a means for retaining soil; a means for killing pests in the soil by heat treatment; a source of controlled thermal energy; a means for returning the heat treated soil to the ground. A chain driven rotary plough, mounted on the rear underside of the tractor, provides a means for breaking up the soil and a means for elevating and depositing the soil into a thermally controlled furnace. Write: Mr. James Overton, CIDMAPS, Apartado 255, Alcala de Henares, Madrid, Spain and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Apartado 117, 35, Nunez de Balboa, Madrid, Spain.

Tracteur pesticide/309

Des inventeurs espagnols proposent à une compagnie Canadienne les droits de fabrication et de commercialisation pour un tracteur pesticide qui permet de détruire par un procédé thermomécanique les animaux nuisibles qui vivent et se multiplient dans le sol et qui sont dangereux pour les récoltes et les humains. (Brevets américains et espagnols en instance.) Un tracteur ordinaire permet de tirer le dispositif thermomécanique au-dessus du sol qui comprend une source d'énergie électrique et mécanique, un dispositif pour lever ou baisser la charrue rotative et pour régler la profondeur de pénétration dans le sol, un dispositif pour ouvrir et fermer la porte de sortie du sol de la chaudière, un dispositif pour mettre en marche et arrêter un ensemble de batteurs servant à broyer le sol. Une chaudière électrique isolée, montée à l'arrière du tracteur permet de retenir le sol, de tuer les animaux nuisibles par chauffage du sol, de contrôler l'énergie thermique et de retourner le sol traité sur terre. Une charrue rotative entraînée par chaîne est montée sous le tracteur à l'arrière et casse le sol qui est ensuite déposé dans la chaudière à contrôle thermique. Écrire à: M. James Overton, CIDMAPS, Apartado 255, Alcala de Henares, Madrid (Espagne) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Apartado 117, 35, Nunez de Balboa, Madrid (Espagne).

Construction Material/309

Belgian inventor offers a formula and know-how license on a manufacturing procedure using (more than 80%) recycled old papers or alkaline sludge from paper mills and cement (between 8% and 15%) to manufacture entire panels resembling brick, ceiling board, wood, rubble, stone, schist, tiles or even slate. This product can also reproduce antique frames and shutters and can be used to build an entire bungalow, including insulation, or apartment buildings with light metal frames. The advantages include very low cost, good insulating performance at low

Matériau de construction/309

Un inventeur belge offre sous licence la formule et le know-how à l'égard d'un procédé utilisant, à plus de 80 p. 100, des vieux papiers, les boues alcalines des papeteries et de 8 à 15 p. 100 de ciment pour fabriquer des panneaux entiers ayant l'apparence de la brique, du plafonnage, du bois, du moellon, de la pierre, du schiste, de la tuile ou de l'ardoise. Il est également possible de reproduire des cadres et des volets anciens, et d'utiliser le produit pour construire une maison complète, isolation comprise, ou un immeuble à appartements avec armature métallique légère. Au nombre

and high temperatures, good soundproofing and, by modifying the formula, resistance to weathering. Write: Mr. Maurice Daenen, Rue du Menil 58, 1410 Waterloo, Belgium and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, rue de Loxum, 6, B-1000 Brussels, Belgium.

des avantages offerts, on compte un coût de revient très peu élevé, une bonne isolation thermique à haute et basse température, une bonne isolation acoustique et, en modifiant la formule, une bonne résistance aux intempéries. Écrire à: M. Maurice Daenen, rue du Menil 58, 1410 Waterloo (Belgique) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, rue de Loxum 6, B-1000 Bruxelles (Belgique).

Waste Water Treatment/309

American inventor offers the manufacturing and marketing rights to an improved means for the biological treatment of sewage which exploits critical turbulent intensity. It consists of an aeration chamber with high-activated sludge concentration and two other chambers for two steps of sludge settling. The automatic sludge return from both settling chambers back to the aeration chamber without need for recycling pumps, eliminates a lot of problems and ensures high sludge activity in addition to a significant reduction in operating cost. Uses: indispensable where septics create problems; cheap; simple and relatively maintenance free; high quality effluent can be reused; and it can be easily adapted to expend or cure problems of existing treatment plants especially where space is limited. Write: Mr. Vladimir N. Etlin, 7403 Lisle Avenue, Falls Church, Virginia 22043 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Système de traitement des eaux usées/309

Un inventeur américain offre les droits de fabrication et de commercialisation d'un procédé amélioré de traitement biologique des eaux usées, mettant à profit l'intensité turbulente critique. Le matériel utilisé à cette fin comprend un bac d'aération contenant beaucoup de boue activée et deux autres bacs servant chacun à la sédimentation. La boue retourne automatiquement des deux bacs de sédimentation vers le bac d'aération sans nécessiter l'utilisation de pompes de recyclage, éliminant ainsi un grand nombre de problèmes en plus de produire une boue très activée et de diminuer considérablement les coûts d'exploitation. Utilisations: ce système est indispensable lorsque les fosses septiques constituent un problème; il est peu coûteux, de conception simple et nécessite relativement peu d'entretien; l'effluent de haute qualité obtenu est réutilisable; enfin, il peut être modifié de façon à être ajouté à un système déjà existant ou à en améliorer le rendement, particulièrement lorsque l'espace disponible est limité. Écrire à: M. Vladimir N. Etlin, 7403 Lisle Avenue, Falls Church (Virginie) 22043 et faire parvenir une copie de votre correspondance initiale au Consulat du Canada, 3 Parkway Building, Suite 1310, Philadelphie, Pennsylvanie 19102 (É.-U.).

Water Sterilization/309

Spanish inventors offer licensing rights to an electromagnetic sterilization system whereby organic waste such as sewerage and polluted water are ridded of harmful bacteria. The invention comprises a tank; a current source connected to a coil which fits around the outside of the tank; a current source which creates a magnetic field; a voltage source which creates an electric field between electrical plates embedded in the walls of the tank; and a photon source embedded in the walls of the tank. This technique is claimed to be cheap with respect to energy usage and requires little or previous manufacturing processing. The object of the invention is to employ these techniques in overcoming shortcomings in the state-of-the-art. Write: Mr. James Overton, CIDMAPS, Apartado 255, Alcala de Henares, Madrid, Spain and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Apartado 117, 35, Nunez de Balboa, Madrid, Spain.

Stérilisation de l'eau/309

Des inventeurs espagnols offrent les droits de licence d'un système de stérilisation électromagnétique permettant de débarrasser de leurs bactéries nocives les déchets organiques comme les eaux usées ou les eaux polluées. Les éléments du système sont: une cuve; une source de courant alimentant une bobine entourant la cuve; une source de courant établissant un champ magnétique; une source de tension établissant un champ électrique entre des armatures intégrées aux parois de la cuve; et une source photonique intégrée aux parois de la cuve. Les inventeurs prétendent que le système consomme peu d'énergie et que sa fabrication est peu exigeante. Le but de l'invention est de combiner les techniques ci-dessus pour combler les lacunes de la technologie courante. Écrire à: M. James Overton, CIDMAPS, Apartado 255, Alcala de Henares, Madrid (Espagne) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Apartado 117, 35, Nunez de Balboa, Madrid (Espagne).

Vacuum Cleaner Bag/309

Norwegian inventor offers licensing rights under Canadian Patent Number 1,081,623 for a bag for collecting dust in vacuum cleaners which is made of a mat folded trans-

Sac d'aspirateur/309

Un inventeur norvégien offre les droits de licence sous son brevet canadien n° 1,081,623 pour un sac d'aspirateur constitué d'une natte pliée transversalement à sa demi-

versely of its mid-length dimension to form a bottom and opposed bag walls. The bag is provided with an opening near its upper end for suction of dust-laden air. The inner and outer faces of each bag wall are covered with a coherent non-woven fibrous web; the bag walls comprise a number of intermediate layers formed by laying up a series of rectangular sheets of non-woven fibrous web each of area less than the mat area, the sheets being generally parallel in each layer and the layer extending from the top of one bag wall around the bottom and to the top of the other bag wall. Adhesive stripes of a penetrating adhesive such as a styrene or acrylic-based binder are applied to penetrate the covering layers and the intermediate layers, the stripes being spaced apart so that the bag walls are made up of transverse and parallel dust-gathering sections. A closing seam is also applied to the mat margins. Very economical, high-capacity, low suction pressure drop bags, e.g., of height 78 cm, width 57 cm, made of 14 intermediate layers, having 8 transverse adhesive strips and 17 collecting sections, are readily produced; tapes are affixed to the bag walls to enable inserting and removing the bag from a vacuum cleaner. Write: Mr. Anders Engen, Thorma Produkter A.S., Box 6, Ringeriksveien 243, 1314 Skui, Norway and send a copy of your original correspondence to Commercial Division, Canadian Embassy, Postuttak, Oslo 1, Norway.

longueur de façon à former un fond et des parois opposées. Le sac est percé d'un trou à sa partie supérieure pour l'aspiration de l'air chargé de poussière. Les surfaces extérieure et intérieure de chaque paroi du sac sont recouvertes d'un voile fibreux non tissé cohérent; les parois sont constituées de plusieurs couches intermédiaires formées par la superposition d'une série de feuilles rectangulaires de voile fibreux non tissé, d'une surface inférieure à celle de la natte. Les feuilles sont généralement parallèles dans une même couche et chaque couche passe de la partie supérieure d'une paroi à la partie supérieure de l'autre, en passant par le fond. Des bandes d'un adhésif pénétrant à base de styrène ou d'acrylique par exemple sont appliquées aux couches supérieures et intermédiaires et les pénètre; ces bandes sont espacées de façon que les parois du sac soient constituées de sections parallèles et transversales captant la poussière. De plus, les bords de la natte sont fermés par une couture. On peut ainsi fabriquer rapidement des sacs très économiques, de grande capacité, à faible perte de pression d'aspiration, ayant par exemple 78 cm de longueur, 57 cm de largeur, constitués de 14 couches intermédiaires et comportant 8 bandes adhésives transversales et 17 sections de captage. Les parois du sac comportent des rubans permettant l'installation et l'enlèvement. Écrire à: M. Anders Engen, Thorma Produkter A.S., Box 6, Ringeriksveien 243, 1314 Skui (Norvège) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Postuttak, Oslo 1 (Norvège).

Canadian Patents Available for Licensing or Sale in Canada Issued August 1981

Note:
Résumés of the following Canadian Patents are published in the language of application, English or French.

Process for Rapid Dyeing of Textiles/309

Textile fibers are dyed in a dyebath containing dye and ethylene glycol as the solvent. Generally, the dyeing is conducted at a temperature of about 110 to 165°C. until the desired level of dyeing is attained. Excellent results are obtained in a short time period, e.g., from about 2 seconds to 10 minutes. Write: **PATENT 1,103,411**, Mr. George Kudra-

Bulky Yarn Spindle for Spinning Wheels/309

Spinning wheels, equipped with spindle for a flyer and bobbin, are provided with a second and detachable spindle which can be fitted into and located in the outside orifice of the spindle holding the flyer and the bobbin, to allow the spinning of yarn of larger size or irregular size which would otherwise not pass through the orifice of the spindle holding the flyer, thus allowing the spinning of yarn of any size

Hemodialysis Ultrafiltration System with Controlled Liquid Extraction from Blood/309

An improved hemodialysis ultrafiltration system. Dialysate input and output pumps are linked to maintain their volume flows substantially equal. A pressure attenuator and a pressure amplifier on the dialyzer dialysate inlet and outlet, respectively, are employed to control dialyzer pressure on the dialysate side. Dialysate output in excess of dialysate input is separated through the action of the dialysate output pump for measurement. The ultrafiltration rate may

Conditioning Device for a Liquid Sample Before its Analysis/309

Dispositif de conditionnement d'un échantillon de liquide en vue de son analyse, comportant une pluralité de cellules périphériques calibrées reliées à un réceptacle central, avec pour chaque cellule des moyens d'acheminement de l'échantillon du réceptacle vers ladite cellule en vue d'un remplissage total de celle-ci par centrifugation et des moyens d'échappement de l'air contenu dans ladite cellule vers ledit réceptacle, selon des orifices d'admission et

Liste des brevets canadiens disponibles pour octroi de licence ou vente au Canada délivrés en août 1981

Note:
Des résumés des brevets canadiens ci-joints sont publiés dans la langue de la demande de brevet, en anglais ou en français.

Procédé de teinture rapide des textiles/309

vetz, Product Manager, U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Broche à gros fil pour filatures/309

on the same spinning wheel. Write: **PATENT 1,103,531**, Nell Schilder, 171 Grandview Road, Nepean, Ontario K2H 8B9 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Système d'ultrafiltration en hémodyalise à extraction contrôlée de liquide en présence dans le sang/309

be controlled through the pressure transformers and the instantaneous ultrafiltration rate and total ultrafiltration volume may be continuously monitored. Write: **PATENT 1,103,589**, Medtronic, Inc., 3055 Old Highway Eight, P.O. Box 1453, Minneapolis, Minnesota 55440 and send a copy of your initial correspondence to Canadian Consulate, 15 South Fifth Street, Minneapolis, Minnesota 55402, U.S.A.

Dispositif de conditionnement d'un échantillon de liquide en vue de son analyse/309

d'échappement dimensionnés de façon à retenir le liquide contenu dans chaque cellule après remplissage total de celle-ci. Application notamment aux analyses médicales. Écrire à: **BREVET 1,103,631**, Jean Guigan, 9, rue Jean Mermoz, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Back Up Alarm System/309

Electrically conductive leads electrically connect a relay, a source of electrical energy and a radio transmitter for transmitting radio signals in a back up circuit. The relay is electrically connected to the electric circuit of a burglar alarm system. When an electrical conductor of the burglar alarm system is cut or short-circuited, the relay closes the back up circuit to actuate the transmitter to transmit radio signals indicating that an electrical conductor of the burglar alarm circuit has been cut or short-circuited. Write: **PATENT 1,103,777**, Eugene W. Fowler, 816 Superba Avenue, Venice California 90291 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014, U.S.A.

Système d'alarme de secours/309

Building Blocks/309

Method and apparatus for filling the cavity of a building block with resin foam to improve the thermal insulating properties of the block, in which a delivery pipe for the foam has an outlet arranged to seal over a cavity in the block, so that foam can be injected into the cavity until a back pressure is developed in the delivery pipe. By this means, proper filling of each cavity can be assured. Write: **PATENT 1,103,870**, British Industrial Plastics Limited, 77 Fountain Street, Manchester M2 2EA, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Blocs de construction/309

Apparatus for the Continuous Casting of an Object of Predetermined Weight or Size/309

An apparatus for the continuous casting of an anode plate into low-rimmed, open molds at the periphery of a rotating wheel, which apparatus comprises a casting ladle fitted adjacent to the molds for pouring molten metal into the molds, a feeding member for filling the casting ladle with molten metal between castings, measuring devices for determining the total weight of the casting ladle before and during casting, and control members for regulating the casting cycle on the basis of the measured total weight ofthe casting ladle, the casting ladle being fitted to swivel around a substantially vertical shaft between two positions so that the spout of the casting ladle moves with the mold below during the casting cycle and then back to a position above the next mold before the next casting cycle. Write: **PATENT 1,103,880**, Outokumpu Oy, Töölönkatu 4, SF-00100, Helsinki 10, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Dispositif de coulée continue d'objets de masse et dimension prédéterminées/309

Hydrometallurgical Process for the Treatment of Soluble Silicate-Bearing Materials/309

A hydrometallurgical process for the treatment of a soluble silicate-bearing material for the recovery of its valuable metal content by leaching the silicate-bearing material at an elevated temperature with an aqueous solution of a mineral acid, precipitating silicic acid during the same stage in an easily settling and filtering form, the silicate-bearing material being added at such a rate that its concentration calculated as SiO_2 corresponds to the simultaneously precipitating silicic acid quantity, and by finally separating the solid material from the valuable-metal-bearing solution. Write: **PATENT 1,103,939**, Outokumpu Oy, Outokumpu, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Procédé hydrométallurgique pour le traitement des matières solubles à teneur de silicate/309

Holding and Mounting Device for Side-by-Side Elements/309

Dispositif d'assemblage notamment pour commutateur à étage, dans lequel il est utilisé une pièce d'assemblage d'encombrement réduit comportant une extrémité filetée. Écrire: **BREVET 1,103,964**, CGEE Alsthom, 13, rue Antonin Raynaud, 92309 Levallois Perret, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Dispositif de fixation et d'assemblage d'éléments disposés côte à côte/309

Appliance for Correction of Spinal Curvatures/309

This invention relates to an appliance for correction of spinal curvatures, performed in course of treatment by means of surgical struts. The appliance has the form of a double-arm lever making it possible to extend the effective length of the strut placed in the patient's body. One arm of said lever ends with a holder for clamping the hook of the strut, the other arm being provided with a screw adjusting the spacing of the arms and the displacement of the hook along the strut. This other arm is split longitudinally, one limb being provided with a tapped hole wherein said adjusting screw operates, whereas the other limb is provided with a clearance hole, and with a pivot wherein the link mechanism and the pointer of a dynamometer are mounted. The side surface of this other arm carries a scale over which the tip of the pointer travels indicating the value of the force being applied to the operator. Write: **PATENT 1,104,019**, Wyzsza Szkota Inzynierska im. Jurija Gagarina, Zielona Gora, 50 Podgorna Street, Poland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Matejki 1/5, Srodmiescle, Warsaw, Poland.

Appareil pour corriger les déviations de la colonne vertébrale/309

Ground Engaging Brake for Heavy Vehicles/309

A brake for preventing heavy vehicles from sliding downhill in the backward direction on a slippery surface is disclosed. The brake comprises at least one ground-engaging member pivotally mounted on the frame of the vehicle and adapted to engage the ground, and means for pivoting such a ground-engaging member into engagement with the slippery surface, whereby, upon backward movement of the vehicle, the ground-engaging member will be positively driven into the ground by the weight of the vehicle to stop the backward movement of the vehicle. The outer ground-engaging end of the member is wedge-shape and defines a flat end surface which is upwardly inclined towards the rear of the vehicle when the ground-engaging member is in operative position. Write: **PATENT 1,104,072**, Bernard Coulombe, Mont Saint-Pierre, P.O. Box 61, Gaspé-Nord, Québec G0E 1V0 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Frein s'enfonçant dans le sol pour véhicules lourds/309

Lithium-Aluminum-Iron Electrode Composition/309

A negative electrode composition is presented for use in a secondary electrochemical cell. The cell also includes an electrolyte with lithium ions such as a molten salt of alkali metal halides or alkaline earth metal halides that can be used in high-temperature cells. The cell's positive electrode contains a chalcogen or a metal chalcogenide as the active electrode material. The negative electrode composition includes up to 50 atom percent lithium as the active electrode constituent in an alloy of aluminum-iron. Various binary and ternary intermetallic phases of lithium, aluminum and iron are formed. The lithium within the intermetallic phase of Al_5Fe_2 exhibits increased activity over that of lithium within a lithium-aluminum alloy to provide an increased cell potential of up to about 0.25 volt. Write: **PATENT 1,104,203**, Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to the Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Composé lithium-aluminium-fer pour électrodes/309

Anti-Theft Device/309

A theft prevention device for vehicles adapted to permit a vehicle engine to be kept running when the ignition key is switched off and removed. The device includes a relay and momentary switch means, and the circuit is activated by engaging the emergency brake and depressing and releasing the momentary switch. Normal running operation is restored by inserting the ignition key and turning to the on position. Write: **PATENT 1,104,230**, John A. Cardwell, c/o William Cardwell, 1216 - 18th Street, N.E., Calgary, Alberta T2E 4W6 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Dispositif antivol/309

Gaseous Insulators for High Voltage Electric Equipment/309

Gaseous insulators comprise compounds having high attachment cross sections for electrons having energies in the 0-1.3 electron volt range. Multi-component gaseous insulators comprise compounds and mixtures having overall high electron attachment cross sections in the 0-1.3 electron volt range and moderating gases having high cross sections for inelastic interactions with electrons of energies 1-4 electron volts. Suitable electron attachment components include hexafluorobutyne, perfluorobutene-2, perfluorocyclobutane, perfluorodimethylcyclobutane, perfluorocyclohexene, perfluoromethylcyclohexane, hexafluorobutadiene, perfluoroheptene-1 and hexafluoroazomethane. Suitable moderating gases include N_2, CO, CO_2 and H_2. The gaseous insulating mixture can also contain SF_6 perfluoropropane and perfluorobenzene. Write: **PATENT 1,104,337**, Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to the Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Isolants gazeux pour matériel électrique à haute tension/309

Fluid Flow Meter/309

This invention is a fluid flow meter with pulse output proportional to the fluid flow rate. The pulse is transduced by means of a pick-off sensor from the by-passing of a ball which travels in a toroidal passageway at speed close to that of the velocity of the fluid. The fluid flowing into the device follows a loop-shaped circular passageway while the ball travels in a closed circular passageway. Fluid flow propels the ball to revolve continually at a rate directly proportional to the flow rate of the fluid. Write: **PATENT 1,104,374**, R. Mark J. Cairenius, 195 Kennedy Road South, Suite 309, Brampton, Ontario L6W 3H2 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Débitmètre/309

Efficiency Heater/309

Three elements are secured together in new and unique fashion to form a heating unit, movable and installable as an integral unit and capable of obtaining maximum BTU's from the fuel used. These elements are (1) an outer jacket which defines the design and outline of the heater, (2) an inner jacket, forming with the outer jacket a residual burning chamber, narrow in cross section and relatively high in vertical extent to provide maximum heat transfer surface, and (3) an A- or tent-shaped fire box or combustion chamber, enclosed by and secured to the inner and outer jackets. The tent-shaped fire box extends from the extreme lower end of the heater to its upper limit. The edges of the walls of the fire box are secured to outer and inner jackets in sealed relationship, dividing the areas within the heater into heat producing and heat conducting areas and clean air passageways. The configuration of the inner jacket 14 is an incomplete cylinder. It has separated edges, each slanted to conform and attach to one of the slanted walls of the fire box. The broken away area of the cylinder is triangular. One edge of the triangle is secured to an edge or the fire box wall. The other edge meets and attaches to the outer surface of the opposite wall and in the vicinity of a final vent. Thus access is provided to the residual burning chamber from the interior of the fire box, and egress therefrom is provided in the form of a final vent. The residual burning materials are thus conducted in a circuflar path around the clean air passageway, thus all possible energy units are extracted from whatever fuel is used. Write: **PATENT 1,104,449**, Vesa M. Kuosmanen, 30 High Street, Acton, Massachusetts and send a copy of your initial correspondence to Canadian Consulate General, 500 Boylston Street, Boston, Massachusetts 02116, U.S.A.

Appareil de chauffage/309

Apparatus for Cutting a Blank Sheet Into Strips and for Stacking the Strips in Adjoining Compartments Separated by Partitions/309

The apparatus has circular blades mounted opposite each other in such a manner that they slightly overlap and are at an interval from each other in the axial direction on at least two shafts which can be rotated in opposite directions and are substantially one above the other, in order to cut the blank sheet fed between the circular blades and to feed the cut strips in the direction of the feed downward onto an inclined slide surface, which has, substantially on the same vertical longitudinal plane as the walls of the said adjacent compartments, guide walls the upper ends of which are preferably beveled and meet the inclined surface in order to receive the cut strips and to guide each of them into its respective compartment, lateral-transfer trays which extend, as seen in the direction of the feed, slightly forward and downward from the circular blades, are also inclined in the lateral direction and extend in the lateral direction from between two adjacent guide walls over one guide wall, at maximum as far as the vertical longitudinal plane running through the cutting point of one edge of the strip entering the lateral-transfer tray and at minimum through the vertical longitudinal plane which passes through the center point between the cutting points of the said strip, in order to slant the cut strips and to cause that edge which is inclined lower to slide along the adjacent guide wall, so that the upper edge can fall between the guide walls before the strip falls into the compartment.

Appareil pour découper une feuille vierge en bandes et pour empiler les bandes dans des compartiments adjacents séparés par des cloisons/309

Write: **PATENT 1,104,486**, Outokumpu Oy, Outokumpu, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Protective Gun Sling/309

The invention relates generally to carrying slings adapted for temporary attachment to, for example, rifles and shotguns. More particularly, the sling according to the present invention consists in a single, integrally molded element of flexible, resilient material having end portions adapted to engage respectively, the stock and the nozzle of the firearm, and to be maintained in elastic engagement with the firearm by means of a common strap member. Write: **PATENT 1,104,534**, Frank A. Shindelka, 304-367 Woodbridge Way, Woodbridge Manor, Sherwood Park, Alberta T8A 2Z2 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Bandoulière de fusil ou de carabine/309

Child's Convertible Desk/309

Most children's desks made and sold commercially serve mainly a single purpose, i.e. for writing or other activity that can be performed on a small horizontal surface. Few of them have any flexibility which permits them to be used for a variety of purposes. Some may have a tilting top that can be used either in a horizontal position for writing or at an angle for drawing. But none provide both these features plus a facility for converting the desk into a table with adequate surface area for playing games or serving food. In the invention described, all these features are provided for by making the desk top convertible. This is done by constructing the top of two layers equal in dimensions, the top layer consisting of a single folding leaf and the bottom layer of two leaves, one solidly attached to the desk frame and the other hinged to the frame. The folding leaf is hinged to the fixed lower leaf so that it can either lie at rest on top of the bottom layer to form a writing surface, or fold into an easel position or through a full 180° to form one half of a table top surface, the bottom layer forming the other half. The hinged leaf of the bottom layer is attached to the desk frame in such a manner that it can either lie flat in a plane with the fixed leaf or can be swivelled through 90° into a vertical position to form a support for the folding leaf when in an easel position. The invention also contains another feature in that a seat is provided as an integral part of the desk unit. Although this feature in itself is not unique, advantage is taken of it and patent rights claimed because the seat back is utilized as a fixed support for the folding leaf when in table top position. Write: **PATENT 1,104,625**, Donald F. Martin, P.O. Box 55, Williamstown, Ontario K0C 2J0 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Pupitre transformable pour enfants/309

Garbage Disposal Bag Enclosure/309

An enclosure adapted to hold bags for the filling thereof with garbage and characterized by a cover provided with a padding mat to close the mouth of the open bags in the enclosure and thus minimize the spreading of bad smells and allow complete filling of the bags without having to dispose of only partly filled bags to get rid of bad smells. This garbage disposal bag enclosure thus provides savings resulting from such complete filling of the bags and by being also constructed to use the ordinary grocery paper bags as well as standard garbage bags. This garbage disposal bag enclosure includes a frame with flanges to hold the mouth of the bags along all the periphery thereof to avoid accidental dropping of garbage outside the bags and this frame is forwardly inclined to make it easy to drop the garbage in the bags. Write: **PATENT 1,104,627**, Fernand Beaudoin, 146 Brixton Street, St. Lambert, Quebec J4P 3A2 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Réceptacle de sac à ordures/309

Process for Imparting Antibacterial Activity to Cellulosic Textiles/309

A process for imparting antibacterial activity to cellulosic textiles is disclosed in which the textile is treated with an aqueous solution containing 1%-35% by weight of zirconyl acetate, 0.3%-35% of acetic acid and 1%-25% of an inorganic peroxide, followed by heat drying of the textile to convert the water-soluble agents to insoluble peroxide complexes of zirconyl acetate. As the inorganic peroxides required for this one-bath treating process, hydrogen peroxide and alkali metal perborates are suitable and effective. Alternatively, the cellulosic textile may be treated with a 1%-40% solution of zirconyl acetate in water, followed by heat drying of the textile and subsequent treatment with a 1%-30% aqueous solution of an inorganic peroxide, followed by heat drying of the textile. Inorganic peroxides which are suitable for this two-bath treating process are hydrogen peroxide, alkali metal perborates, and alkali metal peroxydiphosphates. These new treatments inhibit the growth and spreading of odor- and infection- producing bacteria on cellulosic textiles, and the antibacterial activity imparted to the textile is durable to repeated laundering. Write: **PATENT 1,104,752**, The Secretary, U.S. Department of Commerce, NTIS (The), 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Procédé permettant de donner aux textiles cellulosiques des propriétés antibactériennes/309

Bus Feeders and their Manufacture/309

Procédé de réalisation de barre d'alimentation électrique comportant au moins une barre conductrice constituée par au moins deux conducteurs en ruban collés sur un ruban isolant intercalaire et enrobés d'une couche de résine isolante. Il consiste à coller les conducteurs pour former une barre et à immerger la barre obtenue dans un bain de résine. Application aux équipements électriques pour télé-

Barres d'alimentation et procédé de réalisation de telles barres d'alimentation/309

communications, informatique, automatisme. Écrire: **BREVET 1,104,852**, Compagnie Industrielle des Télécommunications Cit-Alcatel, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Protection for Optic Fiber/309

La présente invention concerne la fabrication de câbles à partir de fibres optiques. Elle a pour objet une gaine de protection extrudée autour d'une fibre optique présentant un jeu radial par rapport à cette dernière compris entre 1 et 10 microns. Elle s'applique à la technique des télécommunications par fibres optiques. Écrire: **BREVET 1,104,852**,

Protection d'une fibre optique/309

Câbles de Lyon S.A. (Les),170 avenue Jean Jaurès, 69353 Lyon Cédex 2, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Honey Coated Roasted Nut Product and Method for Making Same/309

There is disclosed a honey coated roasted nut product which is prepared by first coating raw nuts with a mixture of honey and water. The honey coated nuts are then enrobed with a dry mixture of sugar and starch and the nuts are then roasted. After cooling, the nuts may be salted.

Produit de noix rôties enduites de miel et méthode de fabrication/309

Write: **PATENT 1,104,872**, William M. Green, Box 535 Roversonville, North Carolina 27871 and send a copy of your initial correspondence to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303, U.S.A.

Preparation of Reduced Molecular Linearity with Immobilized Amylases/309

Retrogradation-resistant starches of reduced molecular linearity are produced by preferentially hydrolyzing the amylose component of ordinary starches with amylases immobilized on porous carriers which are preferentially sorptive to amylose over amylopectin. Write: **PATENT**

Préparation d'amidons à linéarité moléculaire réduite au moyen d'amylases immobilisées/309

1,104,959, The Secretary, U.S. Department of Commerce, NTIS (The), 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Multiple Wavelength Laser/309

Laser à longueur d'onde multiple, comportant une cavité optique résonnante délimitée par un réflecteur sphérique et un autre réflecteur, et un milieu actif disposé dans la cavité, ce milieu étant susceptible d'amplifier plusieurs longueurs d'onde différentes, ce milieu actif ayant la forme d'un tronc de cône disposé longitudinalement dans la cavité, la grande base du tronc de cône étant opposée au réflecteur sphérique. Des moyens dispersifs sont prévus pour séparer les faisceaux laser oscillant dans la cavité

Laser à longueur d'onde à émissions multiples/309

selon leur incidence sur l'autre réflecteur déliminant la cavité, de façon à provoquer la formation d'une pluralité de faisceaux laser émis par des portions distinctes du milieu actif, ces faisceaux ayant des longueurs d'onde différentes entre elles. Écrire: **BREVET 1,105,120**, Compagnie Générale d'Électricité, 54, rue La Boétie, 75382 Paris, Cédex 08, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Macrame Coupling Device/309

A macrame coupling device for releasably interconnecting the aligned ends of macrame strands includes a generally ellipsoidal assembly defined by two identical portions, i.e., the assembly is split in a plane passing through the longitudinal centre thereof, each portion including a longitudinally extending strand-receiving passage, the passages at the centre of the assembly being enlarged to receive a

Dispositif d'aboutement d'ouvrages en macramé/309

tubular coupler, the coupler including one externally threaded sleeve in one portion extending into and engaging the internally threaded sleeve in the other portion, the knotted ends of the strands being retained by the partially open outer ends of the sleeves. Write: **PATENT 1,106,158**, Katherine Weisse, 255 Brookgreen Drive, S.W., Calgary, Alberta T2W 2W4 and send a copy of your initial

correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Weed Harvester/309

Aquatic weeds are harvested by dragging a cable through such weeds in a direction substantially perpendicular to the longitudinal axis of the cable while rotating the cable around its longitudinal axis, whereby the weeds are wound around the cable and thus pulled from the bottom of the waterway. The cable passes around a drum on a frame, the frame and cable being rotated together on a platform. The platform is mounted on a land or water based vehicle. The

Collecteur d'herbes aquatiques/309

cable can be winched into the frame between blades which cut the weeds from the cable. Write: **PATENT 1,106,158**, J. Armand Desrosiers; Ralph B. Arner, 8744 - 89 Avenue, Edmonton, Alberta T6C 1N7 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Seed Confining Attachment for a Wheat Drill/309

An attachment is disclosed for securement to the boot of an agricultural shovel drill machine. Support structure of the attachment is affixed to the back side of the boot and serves to position a seed deflecting body proximate the discharge end of the boot which body serves to deflect the gravitating seeds forwardly. Plates also carried by the support structure act on the gravitating seed to expedite deposit of the seed in the lowermost portion of the furrow to enhance seed germination. The plates are loosely joined

Accessoire guide-semences sur machine à ensemencer/309

so as to automatically compensate for wear of the boot carried shovel and also to prevent clogging by soil. A handle is associated with the deflector body to permit positioning of same relative to the upright boot axis to enable desired seed deflection. Write: **PATENT 1,106,240**, LaVernon S. Hogenson, Box 66, Hingham, Montana 59528 and send a copy of your initial correspondence to Canadian Consulate, 15 South Fifth Street, Minneapolis, Minnesota 55402, U.S.A.

Stove Construction/309

The invention relates to a stove which burns a primary combustible material in a container placed on a horizontal plate which divides the stove into upper and lower combustion chambers. The plate has a central aperture therethrough which, in operation, is in registry with a central opening in the container bottom wall. A hollow perforated tube is positioned in the container in registry with the opening and the aperture and the combustible material fills the container, surrounding the wall of the tube. When a temporary starting fire is lit in the lower chamber, the flames thereof will be drawn up into the tube and will light the combustible material in the container through the perforations in the tube. The combustible material in the container will burn radially outwardly from the tube in a uniform manner, with

Poêle/309

air circulation being provided in the expanding annular space between the tube and the burning face of the combustible material. Combustion may be controlled via appropriate air vents and ash will accumulate in the bottom of the container. The container may be removed so that the ashes may be conventiently disposed of and so that the container maye be recharged with new combustible material. Write: **PATENT 1,106,253**, Joseph Martonfi, Sr., 500 Rang St. François, R.R. 2, Blainville, Quebec J7E 4H5 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Butt Hook for a Logging Choker Line/309

A butt hook having a main body defining a laterally open cavity within which is received a choker line ferrule. A sleeve on the main body is positionable therealong to open and close the cavity for release and retention of the ferrule. A winchline receiving, removable shackle on the main body confines the sleeve against opening movement to assure ferrule and choker line retention. The shackle is of the type manually removable enabling choker line detachment and replacement without the aid of tools. A modified form of butt hook utilizes a sleeve of reduced length slidably

Crochet d'élingue à grumes/309

mounted on the main body to open and close a ferrule receiving cavity. A key on the main body prevents axial movement of the sleeve until a keyway in the sleeve is rotated into alignment with the key to permit axial sleeve movement. Write: **PATENT 1,106,421**, Robert C. Stott, 3609 E. 17th Avenue, Eugene, Oregon 97403 and send a copy of your initial correspondence to Canadian Consulate General, 412 Plaza 600, Sixth and Stewart, Seattle, Washington 98101, U.S.A.

Phase-Locked Loop/309

La présente invention est du domaine de l'électronique. Elle est relative aux boucles à verouillage de phase comportant un oscillateur à fréquence variable contrôlé en tension, un comparateur de phase à caractéristique cosinusoïdale recevant une oscillation de référence et celle fournie par l'oscillateur et un filtre passe-bas connecté entre la sortie du comparateur de phase et une entrée de commande de fréquence de l'oscillateur. Elle a pour objet une boucle à verrouillage de phase du type précité ayant un filtre passe-bas avec une structure commutable en fonction du déphasage instantané entre l'oscillation de référence et celle issue de l'oscillateur. Le filtre passe-bas présente deux caractéristiques de transfert distinctes de la forme

Boucle à verrouillage de phase/309

$$F_1(p) = \frac{1}{p+c}\ \frac{a+p}{p} \quad \text{et } F_2(p) = \frac{1}{p+c}\ \frac{a-xp}{p}$$

l'une $F_1(p)$ adaptée au fonctionnement en asservissement de phase de la boucle, l'autre $F_2(p)$ adaptée à la recherche de l'accrochage de la boucle, a et c constantes réelles et positives et x constante réelle, positive et non nulle. Écrire: **BREVET 1,106,457**, Compagnie Industrielle des Télécommunications Cit-Alcatel, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Method and System for Absolute Activity Determination of Radionuclides/309

A method and apparatus for absolute activity determination of radionuclides, especially of low maximum energy pure beta-emitters as for instance ^{3}H, ^{63}Ni, ^{14}C, ^{35}S. The application of the invention can also be extended for activity determinations of other radionuclides, for example of those disintegrating through the electron capture. The method contemplates producing pulses of various multiples of coincidence simultaneously, and correlating the counts of the pulses to obtain a measure of the absolute activity. This is achieved by providing a scintillation head containing at least three photomultipliers optically coupled to the scintillator and the source whose activity is

Méthode et système d'analyse de l'activité absolue des radionucléides/309

to be measured. The outputs of the photomultipliers are connected via amplifiers to coincidence gates having two and three inputs. The outputs of coincidence gates with two inputs are connected to a summing circuit whose output constitutes the first output of the system, the output of the gate with three inputs constituting the second output of the system. Write: **PATENT 1,106,505**, Instytut Badan Jadrowych, Warszawa, ul. Dorodna 16, Poland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Matejki 1/5, Srodmiescle, Warsaw, Poland.

Tangentially Gas-Fired Muffle/309

A tangentially gas fired muffle comprises a hinged annular housing defining inner and outer annular chambers divided by a ring of heat resistant perforate or expanded material. The outer annular chamber has inlets in the form of immersion tubes each locating an atmospheric burner, and outlet ports for discharging the products of the previous burner or burners. The perforate or expanded metal ring contains the combustion process in the outer annular chamber and also acts as a radiant for dissipating heat on a circumferential weld of two pipe sections. The gas burners are connected to a control console for supplying the burners continuously with gas at respective high and low flow rates.

Four à moufle à chauffage tangentiel au gaz/309

Solenoid valves, connected to temperature controllers, provide the burners continuously with gas at respective high and low flow rates. Energy regulators control the rate of heating. A self-holding relay and a gas pressure responsive switch provide a safety feature for isolating the electrical and gas supplies in the event of a supply failure. Write: **PATENT 1,106,597**, Cooperheat, 164 Lord Street, Southport, Merseyside PR9 0QH, England and send a copy of your initial correspondence to the Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Process for Recovering Actinide Values/309

A process for rendering actinide values recoverable from sodium carbonate scrub waste solutions containing these and other values along with organic compounds resulting from the radiolytic and hydrolytic degradation of neutral organophosphorous extractants such as tri-n butyl phosphate (TBP) and dihexyl-N,N-diethyl carbamylmethylene phosphonate (DHDECMP) which have been used in the reprocessing of irradiated nuclear reactor fuels. The scrub waste solution is preferably made acidic with mineral acid, to form a feed solution which is then contacted with a water-immiscible, highly polar organic extractant which selectively extracts the degradation products from the

Procédé de récupération d'actinides/309

feed solution. The feed solution can then be processed to recover the actinides for storage or recycled back into the high-level waste process stream. The extractant is recycled after stripping the degradation products with a neutral sodium carbonate solution. Write: **PATENT 1,106,615**, Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Apparatus for Measuring Liquid Volumes/309

A liquid volume measuring apparatus has two parts. One part is a vessel into which the liquid to be measured is poured. the vessel is transparent or has a transparent part and a scale (the other part) is arranged outside the vessel so that it can be seen through the transparent vessel wall. There is an air gap between the scale and the vessel. While the vessel is empty and the vessel is viewed from above and inside, the scale can be seen through the transparent wall. However when the vessel is filled, those parts of the scale below the liquid level disappear because the light from these parts is totally internally reflected. The volume of liquid in the vessel can thus be observed from above the vessel. Write: **PATENT 1,106,643**, Jan Andersson, Domherrestigen 21F, S-614 00 Soderkoping, Sweden and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm 16, Sweden.

Appareil de mesure de volumes de liquides/309

Stove/309

A solid fuel-burning stove has a fire chamber defined by its walls and top and an upper gas recirculating chamber with a convex portion is provided in the top section of the stove. Write: **PATENT 1,106,715**, Lloyd W. Cummer, 630 Dieppe Road, Winnipeg, Manitoba R3R 1C7 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Poêle de chauffage/309

Apparatus for Producing Mechanical Kinetic Energy from Falling Water/309

Agitation of the surface of a body of water by a falling stream of water results in the entrainment of air bubbles which are carried underneath the surface. These air bubbles are collected in a tank having a submerged open bottom. Air pressure is produced within the tank and utilized to perform useful work by operating a pneumatic pressure transformer which in turn produces high pressure air for operating a series of air-lift pumps. In an alternative embodiment a reciprocating piston motor or turbine is positioned in a path of flow between a portion of the body of water containing relatively few air bubbles and another portion containing a relatively large quantity of bubbles. Flow through this path takes place by reason of a difference in densities and is available to do useful work. Write: **PATENT 1,106,729**, Willing B. Foulke, 109 Greenridge Road, Wilmington, Delaware 19805 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Dispositif pour la conversion de l'énergie produite par une chute d'eau en énergie cinétique mécanique/309

Method and Apparatus for the Continuous Production of a Slurry Explosive Containing an Emulsified Liquid Component/309

The continuous production of an explosive is achieved by intermixing at least two liquid component streams in an apparatus including a mixing rotor generally formed like a turbine impeller and freely rotatably supported in a housing directly opposite an inlet opening for one of the liquid components. The passing liquid stream imparts a rotational motion to the mixing rotor and the liquid components are effectively mixed by shear and turbulence in an annular narrow mixing zone between the outer periphery of the rotor and the inner wall of the housing. Preferably the entire surface of the mixing rotor is surrounded by the flowing liquid components, thus providing a low friction hydrostatic rotor support. Write: **PATENT 1,106,835**, Dyno Industrier A.S., Tollbugaten 22, Oslo 1, Norway and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Postuttak, Oslo 1, Norway.

Méthode et appareillage pour la production continue d'un explosif contenant un liquide émulsifié pour la boue/309

Articulating Beam Track/309

This invention provides an articulating beam and belt system for an endless track vehicle drive. This track drive, in single or multiple configurations is attached only by resilient means to the vehicle body, allowing the beam and belt system to track freely. The belt used can flex universally, preferably with resilient resistance to flexing. It is supported by wheels attached to a jointed beam that articulates at each joint. Initiation of track curvature is accomplished by forced rotation of the end beam links. Beam articulation with full belt flexing is so designed to allow the beam support wheels to roll the beam into a curved configuration, thereby changing vehicle direction with a minimum of sliding friction between ground and track. Write: **PATENT 1,106,880**, John S. Scherer, 87 Glenwood Dr., Chatham, Ontario N7L 3X3 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Chenille sur poutre porteuse articulée/309

Microwave Accelerator E-Beam Pumped Laser/309

A device and method for pumping gaseous lasers by means of a microwave accelerator. The microwave accelerator produces a relativistic electron beam which is applied along the longitudinal axis of the laser through an electron beam window. The incident points of the electron beam on the electron beam window are varied by deflection coils to enhance the cooling characteristics of the foil. A thyratron is used to reliably modulate the microwave accelerator to produce electron beam pulses which excite the laser medium to produce laser pulse repetition frequencies not

Dispositif et méthode de pompage pour lasers au moyen d'un accélérateur à microondes/309

previously obtainable. An aerodynamic window is also disclosed which eliminates foil heating problems, as well as a magnetic bottle for reducing laser cavity length and pressures while maintaining efficient energy deposition. Write: **PATENT 1,106,952**, Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Combination Free Electron and Gaseous Laser/309

A multiple laser having one or more gaseous laser stages and one or more free electron stages. Each of the free electron laser stages is sequentially pumped by a microwave linear accelerator. Subsequently, the electron beam is directed through a gaseous laser, in the preferred embodiment, and in an alternative embodiment, through a microwave accelerator to lower the energy level of the electron beam to pump one or more gaseous lasers. The combination laser provides high pulse repetition frequencies, on

Ensemble de lasers à gaz et à électrons libres/309

the order of 1 kHz or greater, high power capability, high efficiency, and tunability in the synchronous production of multiple beams of coherent optical radiation. Write: **PATENT 1,106,953**, Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Electrically Conductive Rubber/309

An electrically conductive silicone rubber comprising up to 25% (based on total material weight) of conducting carbon black, from 25-200% (based on the weight of silicone gum) of at least one additive, the or each additive having a particle size between 0.005 microns and 100 microns, being compatible with the rubber and having a melting point

Caoutchouc conducteur d'électricité/309

above the curing temperature of the rubber. Write: **PATENT 1,107,059**, Hotfoil Limited, Heath Mill Road, Wombourne, Wolverhampton, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Gold Extraction/309

A process for extracting gold values from a gold-bearing pyrite concentrate which includes the steps of roasting the concentrate at a temperature in the range 600 to 750°C, preferably 650 to 700°C, the roast also preferably being carried out in the presence of a suitable alkali metal salt or hydroxide, typically sodium sulphate, and thereafter leaching the gold values from the roasted concentrates for

Séparation de l'or/309

example by means of a standard cyanide leach. Write: **PATENT 1,107,076**, Anglo American Corporation of South Africa Limited, 44 Main Street, Johannesburg, Transvaal, South Africa and send a copy of your initial correspondence to Canadian Embassy, P.O. Box 26006, Arcadia, Pretoria 0007, South Africa.

Process for Removing Zinc from a Nickel Solution by Extraction/309

A process for removing zinc from an aqueous solution of a nickel salt by liquid-liquid extraction using as the extraction agent an organic phosphoric acid dissolved in an organic solvent, adding a strongly oxidizing substance at an elevated temperature to the aqueous phase emerging from the extraction to precipitate the cobalt as a hydroxide and decompose the organic phase left in the aqueous

Méthode de séparation par extraction du zinc en présence dans une solution au nickel/309

phase and to adsorb it into the cobalt hydroxide precipitate, and finally separating it from the pure aqueous nickel salt solution. Write: **PATENT 1,107,079**, Outokumpu Oy, Outokumpu, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, P.O. Box 779, 00101 Helsinki, Finland.

Three-Dimensional Image Production/309

A method of producing on a screen or other viewing medium, a sequence of spaced-viewpoint fixed visual rep-

Production d'images tridimensionnelles/309

resentations of a scene, equivalent to "left-eye" and "right-eye" views thereof, so as to produce an image which is per-

ceivable as three-dimensional. The method includes creating alternate or simultaneous sequential images from each viewpoint. The images are then alternately and recurrently projected onto a screen or otherwise displayed. Projection must take place at a rate of at least fifty-four images per-second in order to be perceived essentially normally as three-dimensional. Write: **PATENT 1,107,100**, Byron S. Ferris, 3264 S.W. Evergreen Terrace, Portland, Oregon and send a copy of your initial correspondence to Canadian Consulate General, 412 Plaza 600, Sixth and Stewart, Seattle, Washington 918101, U.S.A.

Device for Applying a Sheet-Like Material to a Surface/309

Dispositif pour déposer une pellicule sur une surface/309

A device for applying wall-paper to a wall is disclosed. The device comprises a carriage for holding a roll of wall-paper, a spring-biased clamp for gripping, the wall-paper issuing from the roll and handles for opening the clamp and disengage the wall-paper therefrom. The small amount of wall-paper which extends past the clamp can be easily applied and properly aligned on the wall by the user's two hands while the device and roll hang freely. Write: **PATENT 1,107,246**, Salvator Spataro, 44 The Boulevard, Morwell, Victoria 3840, Australia and send a copy of your initial correspondence to Canadian Consulate General, Princes Gate East Tower, 17th Floor, 151 Flinders Street, Melbourne 3000, Australia.

Golf Bag Support Stand/309

Support pour sac de golf/309

A support stand for supporting a golf bag or the like. The stand comprises a clamp member attachable to the upper edge of the bag, and a pair of legs mounted on the clamp member for pivoting between retracted positions, wherein the legs are disposed adjacent the longitudinal axis of the bag, and extended positions wherein the bag and the two legs form a self-standing tripod. The two legs are constrained to pivot coordinately away from the bag and away from each other. Write: **PATENT 1,107,263**, Otto Neth, 7321 Corregidor Road, Vancouver, Washington, and send a copy of your initial correspondence to Canadian Consulate General, 412 Plaza 600, Sixth and Stewart, Seattle, Washington 98101, U.S.A.

Method and Apparatus for Treading Tires/309

Méthode de pose de la bande de roulement sur un pneu/309

A method of applying a tread band to a tyre carcass includes the steps of placing a pre-vulcanised tread band on the inner surface of a resiliently flexible tread band holder and deforming the band holder inwardly to contact the tread band with a tyre carcass. The deformation is carried out using inflatable air bags on the outer surface of the tread band holder. The deformation shortens the periphery of the tread band and produces a compressive stress in the band, which is retained in the band after bonding to the tyre carcass. Write: **PATENT 1,107,469**, Kentredder Limited, Longueville, St. Saviour, Jersey, Channel Islands, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Artificial Teeth Construction/309

Dent artificielle/309

Artificial tooth inlays and crowns are made by electrolytically depositing a metal, preferably gold, matrix on a preformed model and subsequently building up porcelain on the matrix. The matrix may then be removed prior to cementing the inlay or crown to the patient's tooth; or alternatively the inlay or crown may be cemented to the patient's tooth together with the matrix. Write: **PATENT 1,107,542**, Olbert W. Rogers, 70 Gymea Bay Road, Gymea, New South Wales, Australia and send a copy of your initial correspondence to Canadian Consulate General, A.M.P. Centre, 8th Floor, 50 Bridge Street, Sydney, N.S.W. 2000, Australia.

Animal Processing System and Cutting Gate/309

Système de tri des animaux et barrière directrice/309

The invention relates to a cutting gate, adapted to be utilized in the grading or separating of animals such as horses, cows or the like, into two or more holding corrals. The gate according to the invention comprises a first substantially vertical elongate member adapted to be rotatably mounted about a supporting post or standard; two diverging substantially vertical side portions fixedly attached to the first member, to extend radially therefrom and a third forwardly facing side extending between the diverging side portions remote from the first member to define a space, generally triangular in plan. The gate, which is controllable by an operator positioned within the space, is adjustable in height to ensure adequate ground clearance and additional stops may be provided to limit the rotation of the gate about its support. The invention further contemplates the utilization of the novel cutting gate in conjunction with an

animal receiving chute and two or more holding pens or corrals. The gate is positioned so that it may be swung from a first position wherein the gate blocks the chute, to a second position wherein animals may be passed to a selected one of the pens or corrals. Write: **PATENT 1,107,549**, Eric Van Maarion, Box 83, Crossfield, Alberta; Jake Van Maarion, Box 408, Crossfield, Alberta T0M 0S0 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

McDoom Stripper-Harvester/309

Moissonneuse-batteuse McDoom/309

A standard through-flow grain harvester consists of components for picking up lodged crops, cutting, feeding, treshing, separating grain from straw and cleaning. In this invention, pneumatic plant deflector and pneumatic plant dividers may lift and deflect the plant towards an upper stripping drum rotating counter clockwise; and a lower stripping drum rotating clockwise. Both stripping drums may be fitted with spirally arranged fingers. The stripped grain may be sucked by a suction fan into a bin fitted with an automatic door. The exhaust from the suction fan may supply air to the plant deflector and plant dividers. The air from the plant deflector and plant dividers may be controlled in a manner which would prevent grain scatter on the ground and facilitate collection of the stripped grain. Write: **PATENT 1,107,599**, Shaukat A. McDoom, 1807 Meadowbrook Road, Ottawa, Ontario K1B 4W6 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Target for Projectiles/309

Cible de tir/309

A target for projectiles is disclosed. The target comprises a base plate, a plurality of studs mounted on the base plate parallel to each other, a plurality of rods bundled together and having one end removably secured to the end of the studs and the other end facing in the direction from which the projectiles are launched, and means on the periphery of the bundle of rods for holding the rods under compression. Write: **PATENT 1,107,782**, Wilbrod Rodrigue, 85 Barton Street East, Hamilton, Ontario L8L 2N1 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Foldaway Canopy for a Pick-Up Truck/309

Pavillon pliable pour camionnette/309

A canopy to cover the open box or flatbed of a pickup truck and selectively retractable to uncover the flatbed and conventionally use the truck. This foldaway canopy is characterized by a pair of rigid end portions which cooperatively form an enclosing case for an intermediate section of foldable material, by a simple guide track system, and by the end portions and intermediate section outwardly overhanging a pair of guide tracks to conceal the latter against snow and ice. The rear rigid end portion is mounted on carriages engaging the guide tracks and the foldable material is supported by transverse arches having their opposite ends, each slidable on a cable mounted in the corresponding guide track. Hooks and detents are provided to lock the rear end portion in open or closed position. Write: **PATENT 1,107,790**, Wilbrod Rodrigue, 85 Barton Street East, Hamilton, Ontario L8L 2N1 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Equipment for Monitoring Movement of a Member/309

Dispositif de surveillance des déplacements d'un élément/309

Problems associated with the exact determination of position of a mine cage are overcome. The sensors detect a magnetic striping on a rope arranged in a mine shaft and derive electrical signals indicative of the striping and thus the position of the mine cage. The signals are protected from common channel interference by circuitry and the position and direction of the cage are determined by a logic unit. Error detection means detect circuit faults which could give rise to misleading positional data. Write: **PATENT 1,107,833**, Coal Industry (Patents) Limited, Hobart House, Grosvenor Place, London SW1, England and send a copy of your initial correspondence to the Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Visual Feed Control Assembly for Carriage Fed Sawmill Saws/309

Commande visuelle d'avance pour scieries à scies alimentées par chariot/309

A visual feed control assembly for carriage-fed, electric motor driven sawmill saws comprises in combination with the electric drive motor of the saw electric circuits including first and second trip current relays with associated first and second electrically operated lights or other signals. The trip current relays are preset, the one to

operate its associated signal at a predetermined minimum saw motor amperage load and the other to energize its associated signal at a predetermined maximum saw motor amperage load. The signals enable the operator to adjust the carriage speed to suit the saw so that the saw operates at maximum efficiency at all times, irregardless of the size and character of the logs being sawed. Write: **PATENT 1,107,849**, Russell A. Heitzman, 349 West 14th Street, McMinnville, Oregon 97128 and send a copy of your initial correspondence to Canadian Consulate General, 412 Plaza 600, Sixth and Stewart, Seattle, Washington 98101, U.S.A.

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Stickless Burley Tobacco Curing Frames/309

Filed October 3, 1980, by the Department of Agriculture. The instant invention is an apparatus developed to suspend burley tobacco on a curing frame without the use of sticks. A plurality of individual retainer members are affixed to a rigid base member. Each retainer member comprises a base slab of resilient material with two perpendicular cross cuts in the center thereof. A hole is centered

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DOE
Mr. James E. Denny
Assistant General Counsel for Patents
Office of the General Counsel
U.S. Department of Energy
Washington, D.C. 20545

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Supports pour le séchage sans baguettes du tabac jaune/309

on the intersection of the two perpendicular cross cuts giving four lips which will bear on a tobacco stalk when the tobacco stalk is inserted through the center. This deforming resilient material will then assert pressure around the circumference of the stalk of sufficient force to hold the tobacco stalk in a verticle position throughout the tobacco curing process. Write: **PAT-APPL-6-193 862**, NTIS.

Apparatus for Making No-Twist Yarn/309

Filed October 30, 1980, by the Department of Agriculture. An apparatus is described for drafting and parallelizing strands of fiber comprising three side-by-side rolls nested in three side-by-side troughs which conform to and are adjacent the bottoms of the three rolls. The rolls are rotated in the same direction at sequentially greater speeds. The first two rolls include fiber-combing teeth, and the third roll is composed of a smooth, rubber-like surface.

Appareil de fabrication de fil sans torsion/309

The fibers pass sequentially around the bottoms of the three rolls through a very narrow gap between the rolls and troughs to emerge in a parallelized, drafted condition. The unit may be incorporated into a no-twist yarn system as the sole mechanism for drafting and parallelizing the fiber, to form no-twist yarn in a continuous manner; or be used in place of conventional drafting system. Write: **PAT-APPL-6-202 397**, NTIS.

Argon Purity Tester/309

Filed November 13, 1980, by the Department of the Air Force. The patent application relates to an inert gas purity tester having a housing made of transparent material and in which is located a thin wire tungsten filament. The filament is electronically connected to a variable electrical power source from, for example, an inert gas welding apparatus in order to provide a regulated flow of current to pass through the filament. The power source is then regulated until the filament glows white. The housing also has

Appareil de mesure de la pureté de l'argon/309

formed therein an inlet and outlet for allowing the flow of inert gas to pass therethrough. During the passage of gas through the housing, a trace of smoke detected at the white glowing filament indicates the presence of an impurity of oxygen within the inert gas such as argon. Viewing is continued until no more smoke is detected and it is therefore established that the impurity is no longer present in the gas. Thereafter, inert gas welding can be successfully undertaken. Write: **PAT-APPL-6-206 412**, NTIS.

Fluid-Cooled Electrical Conductor/309

Filed November 30, 1980, by the Department of the Air Force. The patent application relates to a fluid-cooled electrical conductor having excellent heat transfer, low eddy loss, and good space factor is made by encapsulating small magnet wire strands, which constitute an electrically conductive member, in a meltable matrix that supports the wire; wrapping the matrix with an insulating tape having a

Conducteur électrique refroidi par liquide/309

silicone adhesive backing and thereby forming an insulating member that surrounds the matrix; perforating the insulating member so that an inlet and an outlet are formed through which an insulating coolant fluid can flow; and, heating, melting, and removing the meltable matrix. Write: **PAT-APPL-6-206 413**, NTIS.

Cursor Apparatus Interactive Graphic Display System/309

Filed November 13, 1980, by the Department of the Air Force. Graphic data entry in an interactive graphic display system is achieved by means of an apparatus that provides automatic centering of a pointing laser beam on a hand held cursor. The graphic display system provides a means for displaying and comparing through superposition full size overlaid graphical data and projected graphical data on a common display screen. It includes a steerable pointing laser the beam of which scans the display screen in

Curseur pour système de visualisation graphique interactif/309

response to a laser beam deflection circuit. The system also includes laser beam position sensing and indicating circuits which accurately measure the laser beam position. Centering of the laser beam on the cursor at the display screen is accomplished by dithering the beam uniformly about its average position in a discrete dither pattern and utilizing the dither pattern to determine misalignment of the beam's average position with respect to the center of the cursor. Write: **PAT-APPL-6-206 414**, NTIS.

High Voltage Driver Amplifier Apparatus/309

Filed November 13, 1980, by the Department of the Air Force. The patent application relates to a high voltage driver amplifier apparatus utilizing two high-voltage, current switches which are controlled by gated logic cir-

Dispositif amplificateur-excitateur à haute tension/309

cuits, to connect a capacitive load to either a positive or negative high voltage power source. Write: **PAT-APPL-6-206 415**, NTIS.

Diethynylbenzene-Ethynylpyrene Copolymers/309

Price per copy from NTIS: PC U.S. $6.50/MF U.S. $3.50, filed November 17, 1980, by the Department of the Air Force. The present invention concerns itself with the syn-

Copolymères du diéthynylbenzène-éthynylpyrène/309

thesis of a novel aromatic acetylene copolymer derived from a mixture of diethynylbenzene and ethynylpyrene and its use as a matrix resin for carbon-carbon composites. The

copolymers are unique in that they char very efficiently in yields as high as 95%. Additionally, the chars are capable of graphitizing when heated to temperatures of 2400-2800C. The prepolymer mixtures are very fluid when melted and, consequently, they can readily impregnate a woven carbon fiber fabric. In addition, they homopolymerize when heated above 100C and, with a sufficient proportion of ethynylpyrene, the homopolymerization rate can be controlled, and runaway reactions can be prevented. The novelty of this invention resides in the fact that it provides a material system which yields high char, graphitizable, low viscosity, easy to process matrix resins for carbon-carbon composites. The composites are especially effective for use as re-entry missile nose cones. The copolymer of the present invention has all the properties necessary to easily produce high density carbons with minimal pressure requirements for fabrication. Accordingly, the primary object is to provide an easily processable matrix resin for carbon-carbon components. Write: **PAT-APPL-6-207 928**, NTIS.

Universal Timing Array/309

Réseau temporisateur universel/309

Price per copy from NTIS: PC U.S. $12.50/MF U.S. $3.50, filed December 4, 1980, by the Department of the Air Force. A universal timing array (UTA) comprising a branch and increment logic circuit and multiple 2-bit counter cells is fabricated as a single large scale integrated circuit and is adapted to implementing various timing and control functions in digital computers and radar signal processors. Implementation of the UTA functional design using emitter coupled logic circuitry and special circuit design features improves UTA performance by increasing operating clock frequency, widening operating temperature range and reducing on-chip complexity. A specific embodiment utilizes a standard universal digital array chip having specially selected cell placements and interconnecting routing patterns. Write: **PAT-APPL-6-210 476**, NTIS.

Load Balancer for Multiple Loads/309

Équilibreur pour charges multiples/309

Filed December 4, 1980, by the Department of the Air Force. The invention relates to an apparatus for balancing an asymmetric load of one or more large heavy objects such as missiles and the like including a rotatable horizontally oriented jack screw for moving a block with a lifting eye thereon in a lateral direction. A beam perpendicular to the jack screw holds a fixture to which one or more missiles are attached. Lateral movement of the block in response to rotation of the jack screw serves to balance the load during hoisting and conveying operation regardless of the number and position of the missiles in the missile holding fixture. Write: **PAT-APPL-6-212 955**, NTIS.

Apparatus for Measuring the Local Void Fraction in a Flowing Liquid Containing a Gas/309

Appareil de mesure du volume local inoccupé dans un liquide en mouvement contenant un gaz/309

Filed July 17, 1979, by the Department of Energy. The local void fraction in liquid containing a gas is measured by placing an impedance-variation probe in the liquid, applying a controlled voltage or current to the probe, and measuring the probe current or voltage. A circuit for applying the one electrical parameter and measuring the other includes a feedback amplifier that minimizes the effect of probe capacitance and a digitizer to provide a clean signal. Time integration of the signal provides a measure of the void fraction, and an oscilloscope display also shows bubble size and distribution. Write: **PAT-APPL-6-058 339**, DOE.

Servo Control Booster System for Minimizing Following Error/309

Servocommande servant à réduire l'erreur d'asservissement/309

Filed July 26, 1979, by the Department of Energy. A closed-loop feedback-controlled servo system is disclosed which reduces command-to-response error to the system's position feedback resolution least increment, delta S/sub R/, on a continuous real-time basis, for all operational times of consequence and for all operating speeds. The servo system employs a second position feedback control loop on a by exception basis, when the command-to-response error greater than or equal to delta S/sub R/, to produce precise position correction signals. When the command-to-response error is less than delta S/sub R/, control automatically reverts to conventional control means as the second position feedback control loop is disconnected, becoming transparent to conventional servo control means. By operating the second unique position feedback control loop used herein at the appropriate clocking rate, command-to-response error may be reduced to the position feedback resolution least increment. The present system may be utilized in combination with a tachometer loop for increased stability. Write: **PAT-APPL-6-061 114**, DOE.

Self-Modulating Pressure Gauge/309

Manomètre auto-modulateur/309

Filed August 7, 1979, by the Department of Energy. An ion gauge is disclosed having a reduced x-ray limit and means for measuring that limit. The gauge comprises an ion gauge of the Bayard-Alpert type having a short collector and having means for varying the grid-collector voltage. The x-ray limit (i.e. the collector current resulting from

x-rays striking the collector) may then be determined by the formula: I/sub x/ = alpha I/sub I/ - I/sub h// alpha - I where: I/sub x/ = x-ray limit, I/sub I/ and I/sub h/ = the collector current at the lower and higher grid voltage respectively; and, alpha = the ratio of the collector current due to positive ions at the higher voltage to that at the lower voltage. Write: **PAT-APPL-6-064 594**, DOE.

Combined Hydraulic and Regenerative Braking System/309

Filed August 9, 1979, by the Department of Energy. A combined hydraulic and regenerative braking system and method for an electric vehicle is disclosed. The braking system is responsive to the applied hydraulic pressure in a brake line to control the braking of the vehicle to be completely hydraulic up to a first level of brake line pressure, to be partially hydraulic at a constant braking force and partially regenerative at a linearly increasing braking force from the first level of applied brake line pressure to a higher second level of brake line pressure, to be partially hydraulic at a linearly increasing braking force and partially regenerative at a linearly decreasing braking force from the second level of applied line pressure to a third and higher level of applied line pressure, and to be completely hydraulic at a linearly increasing braking force from the third level to all higher applied levels of line pressure. Write: **PAT-APPL-6-065 033**, DOE.

Dispositif de freinage mixte hydraulique et recyclable/309

Coal-Feeding Mechanism for a Fluidized Bed Combustion Chamber/309

Filed August 13, 1979, by the Department of Energy. A fuel-feeding mechanism for a fluidized bed combustor is described in which a perforated conveyor belt is utilized in place of the fixed grid normally disposed at the lower end of the fluidized bed combustion zone. The conveyor belt is fed with fuel, e.g. coal, at one end thereof so that the air passing through the perforations dislodges the coal from the belt and feeds the coal into the fluidized zone in a substantially uniform manner. Write: **PAT-APPL-6-065 771**, DOE.

Mécanisme d'alimentation en charbon pour une chambre de combustion en lit fluidisé/309

Laser Pulse Detector/309

Filed August 13, 1979, by the Department of Energy. A laser pulse detector is provided which is small and inexpensive and has the capability of detecting laser light of any wavelength with fast response (less than 5 nanoseconds rise time). The laser beam is focused onto the receiving end of a graphite rod coaxially mounted within a close-fitting conductive, open-end cylindrical housing so that ablation and electric field breakdown of the resulting plasma occurs due to a bias potential applied between the graphite rod and housing. The pulse produced by the breakdown is transmitted through a matched impedance coaxial cable to a recording device. The cable is connected with its central lead to the graphite rod and its outer conductor to the housing. Write: **PAT-APPL-6-066 107**, DOE.

Détecteur d'impulsions laser/309

Acceleration Switch/309

Filed August 20, 1979, by the Department of Energy. An improved acceleration switch is described which is of the type having a mass suspended within a chamber, having little fluid damping at low g levels and high fluid damping at high g levels. Write: **PAT-APPL-6-067 858**, DOE.

Commutateur d'accélération/309

Acceleration Switch/309

Filed August 29, 1979, by the Department of Energy. The disclosure relates to an improved integrating acceleration switch of the type having a mass suspended within a fluid filled chamber, with the motion of the mass initially opposed by a spring and subsequently not so opposed. Write: **PAT-APPL-6-070 545**, DOE.

Commutateur d'accélération/309

Device for Absorbing Mechanical Shock/309

Filed August 29, 1979, by the Department of Energy. This invention is a comparatively inexpensive but efficient shock-absorbing device having special application to the protection of shipping and storage cylinders. In a typical application, two of the devices are strapped to a cylinder to serve as saddle-type supports for the cylinder during storage and to protect the cylinder in the event it is dropped during lifting or lowering operations. In its preferred form, the invention includes a hardwood plank whose grain runs in the longitudinal direction. The basal portion of the plank is of solid cross-section, whereas the upper face of the plank is cut away to form a concave surface fittable against the sidewall of a storage cylinder. The concave surface is divided into a series of segments by transversely extending, throughgoing relief slots. A layer of elastomeric material is positioned on the concave face,

Dispositif d'absorption des chocs mécaniques/309

the elastomer being extrudable into slots when pressed against the segments by a preselected pressure characteristic of a high-energy impact. The compressive, tensile, and shear properties of the hardwood and the elastomer are utilized in combination to provide a surprisingly high energy-absorption capability. Write: **PAT-APPL-6-070 546**, DOE.

Wet Powder Seal for Gas Containment/309

Filed August 29, 1979, by the Department of Energy. A gas seal is formed by a compact layer of an insoluble powder and liquid filling the fine interstices of that layer. The smaller the particle size of the selected powder, such as sand or talc, the finer will be the interstices or capillary spaces in the layer and the greater will be the resulting sealing capacity, i.e., the gas pressure differential which the wet powder layer can withstand. Such wet powder seal is useful in constructing underground gas reservoirs or storage cavities for nuclear wastes as well as stopping leaks in gas mains buried under ground or situated under water. The sealing capacity of the wet powder seal can be augmented by the hydrostatic head of a liquid body established over the seal. Write: **PAT-APPL-6-070 547**, DOE.

Joint de poudre humide pour confiner les gaz/309

Apparatus for Controlling the Firing of Rectifiers in Polyphase Rectifying Circuits/309

Filed September 18, 1979, by the Department of Energy. A polyphase rectifier is controlled with precision by a circuit that filters and shifts a reference signal associated with each phase and that starts a ramp signal at a zero crossing of the shifted reference signal. The difference between the ramp signal and an external trigger signal is used to generate a pulse that switches power rectifiers into conduction. The circuit reduces effects of variations that introduce subharmonics into a rectified signal and it can be used for constant or time-varying external trigger signals. Write: **PAT-APPL-6-076 644**, DOE.

Appareil pour commander le déclenchement des redresseurs des circuits polyphasés/309

Bisulfite Stabilization of 5-Azacytidine/309

Filed June 27, 1980, by the Department of Health and Human Services. A bisulfite addition product of 5-azacytidine whereby bisulfite is added to the azacytidine molecule at the 5-6 protonated imine bond. It is significant and advantageous to maintain the compound in this pro-drug form. At a pH above 6 and higher physiological pH, the bisulfite form reverts to the parent compound, rendering it readily available for utilization in the body. This product is produced as the bisulfite addition product at preferably a pH of 2.5. Write: **PAT-APPL-6-163 521**, NTIS.

Stabilisation de la 5-azacytidine par addition de bisulfite/309

Everting Tube Device with Relative Advance Control/309

Filed December 16, 1980, by the Department of Health and Human Services. This invention relates to extensible body exploration probe devices, and more particularly to a probe device for introducing an elongated diagnostic tool or examination implement into a body cavity through a body opening. Write: **PAT-APPL-6-217 143**, NTIS.

Sonde à tube réversible avec commande de la progression relative/309

Silver Strains for Protein in Gels/309

Price per copy from NTIS: PC U.S. $6.50/MF U.S. $3.50, filed March 4, 1981, by the Department of Health and Human Services. This invention relates to improved ultrasensitive metallic silver strains for polypeptides, especially when fixed in synthetic gels, particularly polyacrylamide gels. Write: **PAT-APPL-6-240 577**, NTIS.

Teintures argentiques pour détecter les protéines dans les gels/309

Machine for Mixing and Injecting Water and Grout Into a Roof Bolt Hole/309

Filed July 10, 1980, by the Department of the Interior. The invention disclosed herein is an apparatus for mixing and injecting a grout material. Write: **PAT-APPL-6-168 815**, NTIS.

Appareil permettant de mélanger et d'injecter de l'eau et du coulis dans des trous de boulons sur les toits/309

Preflush-Lixiviant Process for Solution Mining of Uranium Ore Beds/309

Filed July 10, 1980, by the Department of the Interior. This invention relates to the in-situ or solution mining of uranium and, more particularly, to the prevention of severe loss of subterranean formation permeability. Write: **PAT-APPL-6-168 816**, NTIS.

Procédé de pré-rinçage/lixiviation pour l'exploitation de gisements uranifères/309

A Process of Electroplating a Platinum-Rhodium Alloy Coating/309

Filed July 10, 1980, by the Department of the Interior. This invention relates to the field of electrodeposition of metals. More specifically, it is related to a process of obtaining a platinum-rhodium alloy coating of predetermined composition and predetermined thickness, the composition being substantially uniform throughout the electroplated coating. Write: **PAT-APPL-6-168 822**, NTIS.

Procédé de revêtement électrolytique au moyen d'un alliage de platine et de rhodium/309

Readout Circuit for Linear Displacement Transducer/309

Filed July 10, 1980, by the Department of the Interior. This invention relates to a readout circuit for a linear displacement transducer, and more particularly to a readout circuit for measuring the time interval required for a stress wave created in a magneto-strictive probe to travel to a fixed reference point. Write: **PAT-APPL-6-168 823**, NTIS.

Circuit de lecture pour transducteur à déplacement linéaire/309

A Method for Clarifying Slimes/309

Filed August 14, 1980, by the Department of the Interior. The invention is concerned with a method for clarifying slimes. The essential steps of this method are the treatment of a slime with a unique flocculant and the separation of the clarified slime from the aggregated floccules. Our method is primarily based upon the discovery that the unique flocculant described below is useful in slime clarification. This discovery is based upon the further discoveries that the surfactant in this flocculant bridges the slime particles electrostatically to the colloidal magnetic particles in this flocculant, and serves to stabilize the magnetic particles until a certain dilution point of the flocculant is reached, and is based upon the further discovery that there is a particle-to-particle titration between the slime particles and the magnetic particles. In the preferred embodiment of the method, a negatively charged slime is treated with an amine-stabilized magnetic colloid that has a net positive charge. The amine stabilizing agent is a n-C10 to n-C15 aliphatic amine. A preferred amine is dodecylamine. A magnetic colloid containing dodecylamine in an amount that is approximately 25% of the magnetic particles, on a weight basis, and containing about 20w/v% of the magnetic particles, which have a size ranging from about 50 to 100A, has a saturation magnetization of about 200 gauss. This colloid becomes unstable and the magnetic particles thereof irreversibly flocculate when diluted to a magnetization less than about 1 to 3 gauss. Write: **PAT-APPL-6-177 975**, NTIS.

Méthode de clarification de boues/309

Extraction of Metal Ions from Aqueous Solution/309

Price per copy from NTIS: PC U.S. $6.50/MF U.S. $3.50, filed August 14, 1980, by the Department of the Interior. There is a need in the extraction of metal ions from ore leach liquors produced by in situ mining or dump leach extraction of copper and uranium. Other needs are evidenced in the treatment of industrial water effluent streams, and in the treatment of electroplating rinse baths, where it is desired to recover such ions as iron, nickel, copper, chromium, etc. The present invention provides an improved coupled transport process for effecting removal of ions from an aqueous feed solution and their subsequent liberation in an aqueous product solution, where the feed solution is circulated through the lumens of elongate hollow fibers having microporous walls, the fiber walls retaining an organic water-immiscible liquid comprising a complexing agent, and the aqueous product solution being circulated over the outside of the fibers. Write: **PAT-APPL-6-177 976**, NTIS.

Extraction des ions métalliques d'une solution aqueuse/309

Ozone Treatment of Wet-Process Phosphoric Acid/309

Filed August 22, 1980, by the Department of the Interior. Wet-process phosphoric acid, i.e., phosphoric acid produced by sulfuric acid digestion of phosphate rock, typically contains organic impurities which impart a deep brown to black color to the acid. In addition, these organics interfere with solvent-extraction methods conventionally employed for acid purification and uranium recovery. It has been found that a significant decrease in phase-disengage-

Traitement à l'ozone de l'acide phosphorique obtenu par voie humide/309

ment times in solvent-extraction operations, as well as efficient decolorization, may be achieved by treatment of the wet-process acid with ozone. The beneficial effects of the ozone treatment result from both removal of organic carbon, usually at least one-third of the total organics in the wet acid, and ozonation of organic functional groups in the wet acid, thereby limiting the capacity of the organic material to stabilize emulsions. Write: **PAT-APPL-6-180 188**, NTIS.

Sputtering Apparatus for Coating Elongated Tubes and Strips/309

Filed September 8, 1980, by the Department of the Interior. A conventional sputtering chamber is modified to include two elongated hollow tubes which accommodate an elongated workpiece in the form of a tube or strip, of lesser diameter, during a sputter-coating operation. During the sputtering operation, the workpiece is simultaneously rotated and moved back and forth beneath at least one sputtering target to receive a uniform sputtered coating thereon. Write: **PAT-APPL-6-184 852**, NTIS.

Appareil de revêtement par vaporisation pour tubes et barres allongées/309

Recovery of Bismuth from Chloride Process Solutions/309

Filed September 11, 1980, by the Department of the Interior. This invention relates to a method for the separation of bismuth from chloride solutions containing high concentrations of other metals. More particularly, this invention relates to a method of separating bismuth from complex chloride solutions containing other metals using as precipitating agents hexamminecobalt (III) and hexamminechromium (III) salts. Write: **PAT-APPL-6-186 090**, NTIS.

Récupération du bismuth contenu dans des solutions chlorurées/309

Instrumentation for Surveying Underground Cavities/309

Filed October 9, 1980, by the Department of the Interior. Instrumentation is described that can be lowered into an underground cavity to measure the dimensions of the cavity and also, as an added option, the ability to take photographs of the area of interest. Write: **PAT-APPL-6-195 539**, NTIS.

Appareil de contrôle des cavités souterraines/309

Production of Ferrochromium Alloys/309

Filed October 17, 1980, by the Department of the Interior. The process comprises of vacuum reduction of chromite ore with a carbonaceous reductant and, subsequently, simple melting in the presence of suitable slag-forming materials to form the desired ferrochromium alloys. Write: **PAT-APPL-6-197 864**, NTIS.

Production d'alliages ferrochrome/309

Production of Metal Powder/309

Filed October 24, 1980, by the Department of the Interior. The process of the invention relates to production of fine mesh metal powder from polyvalent metal halides such as titanium, columbium, hafnium, uranium, vanadium, and zirconium halides. Write: **PAT-APPL-6-200 109**, NTIS.

Production de poudre métallique/309

In Situ Tritium Borehole Probe for Measurement of Tritium/309

Filed October 24, 1980, by the Department of the Interior. One of the radioactive waste products from nuclear power production is tritium or radioactive hydrogen of mass number 3. The release of radioactive waste products into rivers and streams introduces this tritium into the environment. Public and private agencies involved with nuclear regulation, the protection of the environment, and the study of water resources are concerned with the levels of tritium in our water supply. Presently, the technique for determining tritium levels in water is performed in the laboratory by first purifying the sample of obtained water and then releasing the tritium by electrolysis. Another technique employs calcium carbide to generate actylene gas from the water sample. The presently disclosed invention makes the separation at the sample site and incorporates the water purification previously done into one process. Write: **PAT-APPL-6-200 110**, NTIS.

Sonde pour le dosage in situ du tritium/309

Regeneration of Waste Metallurgical Process Liquor/309

Filed October 24, 1980, by the Department of the Interior. Oxidizing solutions based upon hexavalent chromium in aqueous sulfuric acid have been employed in cleaning and etching operations in the treatment of plastics for plating, in brass finishing, in printed circuit board etching, in anodizing and in other surface treatments. As the oxidizing solutions are used, Cr + 6 is reduced to Cr + 3 and the dissolved solids content increases while the effective acid concentration diminishes. The present invention relates to a method of regenerating spent etching or oxidizing media based upon hexavalent chromium as the oxidizing agent. More particularly, the present invention relates to an electrolytic technique for regenerating hexavalent chromium oxidizing solutions while substantially reducing the quantities of impurity metal ions in solution. Write: **PAT-APPL-6-200 111**, NTIS.

Régénération de liqueurs usées produites par des procédés métallurgiques/309

Amine Flotation of Chromite from Acidic Pulps/309

Filed December 12, 1980, by the Department of the Interior. Because chromium ore is a strategic mineral, substantial interest is involved in practical methods of extracting chromium ore values from domestic chromium ore sources. The present invention relates to a method of beneficiating chromite ores by froth flotation. More particularly, the present invention involves the froth flotation of chromite ores with an amine flotation reagent. Write: **PAT-APPL-6-206 246**, NTIS.

Flottation du minerai de chrome contenu dans des pulpes acides au moyen d'amines/309

Continuous Transducer Drift Compensator/309

Filed November 12, 1980, by the Department of the Interior. The present invention relates generally to transducer signal processing circuitry and more particularly to circuitry for continuously and automatically compensating a transducer output signal for drift and spurious noise components in an industrial process monitoring system. Write: **PAT-APPL-6-206 247**, NTIS.

Compensateur de dérive de transducteur à fonctionnement continu/309

Improved Refractory Coatings/309

Filed September 29, 1980, by NASA. The adhesion, friction and wear properties of sputtered refractory coatings on substrates of materials that form stable nitrides are enhanced by placing each substrate directly below a titanium carbide target of a commercial radiofrequency diode apparatus in a vacuum chamber. Nitrogen is bled into the system through a nozzle resulting in a small partial pressure of about 0.5% to 2.5% during the first two minutes of deposition. The flow of nitrogen is then stopped, and the sputtering ambient is reduced to pure argon through a nozzle without interrupting the sputtering process. When nitrogen is deliberately introduced during the crucial interface formation, some of the titanium at the interface reacts to form titanium nitride while the metal of the substrate also forms the nitride. These two nitrides atomically mixed together in the interfacial region act to more strongly bond the growing titanium carbide coating as it forms on the substrate. Write: **PAT-APPL-6-191 746**, NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113, U.S.A.

Revêtements réfractaires améliorés/309

Mechanical Bonding of Metal/309

Filed November 26, 1980, by NASA. The metal surfaces of the structures that are to be bonded are exposed to an ion beam together with a target of low sputtering yield material. This material deposits on the surfaces and creates sites of sputter resistance which evolve into peaks of a conelike surface microstructure. The textured metal surfaces are arranged in face-to-face relationship and compressed together with plastic deformation which mechanically interlocks the cone. A large interface area is produced which minimizes thermal and electrical losses. Also, no electrical power or heat is required during metal joining. The process can be performed in either air of vacuum. Write: **PAT-APPL-6-210 632**, NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113, U.S.A.

Collage mécanique du métal/309

High Voltage Planar Multijunction/309

Filed December 24, 1980, by NASA. A solar cell which provides high output voltages, comprises a semiconductor wafer in which a number or array of voltage generating regions or unit cells are formed. Each of the unit cells has

Multijonction plane à tension élevée/309

two regions of opposite conductivity type (e.g., n+ and p+) which are separated by a gap region. The unit cells are connected together by metal contacts so that their outputs are additive. Field regions, separated by gaps, overlie the unit cells. Cells are formed in both faces of the wafer; a

High Voltage V-Groove Solar Cell/309

Filed December 24, 1980, by NASA. The fabrication of the cell is described. The solar cell features a plurality of discrete voltage generating regions or unit cells which are formed in a single, generally planar semiconductor body. The unit cells comprise doped regions of opposite conductivity type separated by a gap or indiffused regions. Metal contacts connect adjacent cells together in series so that the output voltages of the individual cells are additive. In

Gyrotron Transmitting Tube/309

Filed December 24, 1980, by NASA. An R.F. transmitting tube for the 20 GHz to 500 GHz range comprises a gyrotron and a multistage depressed 5 collector. A winding provides a magnetic field which acts on spent, spinning or orbiting electrons changing their motion to substantially forward linear motion in a downstream direction. The spent electrons then pass through a focusser into the collector. Nearly all the electrons injected into the collector will

Linear Magnetic Bearings/309

Filed December 24, 1980, by NASA. A linear armature member is magnetically suspended by a bearing which includes an elongated cylindrical housing having two sets of U-shaped stationary electromagnets and position sensors respectively located at each end of the housing. Each set of electromagnets consists of four electromagnet assemblies 90 deg apart around the periphery of the housing and are operable to generate four orthogonal magnetic fields wihin the housing. Each set of position sensors is aligned with the electromagnets to define two orthogonal horizontal and vertical axes from which signals proportional to orthogonal shaft displacement are provided. These signals are fed to four separate drive circuits which are adapted to

Holding Fixture for a Hot Stamping Press/309

Filed January 16, 1981, by NASA. A hand held guide for manually positioning a workpiece between the anvil rib and tool of a hot die stamping press is described. A groove completed by interchangeable cover plates attached at one end of the guide conforms to a cross sectional dimension common to similar workpieces and, with a force fit, reten-

Partial Interlaminar Separation System for Composites/309

Filed February 7, 1980, by NASA. An interlaminar separation system for composites is described wherein a thin layer of a perforated foil film is interposed between adja-

circular wafer is employed. Write: **PAT-APPL-6-219 677**, NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113, U.S.A.

Pile solaire à rainure en V à tension élevée/309

some embodiments, doped field regions separated by gaps overlie the unit cells but the cells may be formed in both faces of the wafer. Write: **PAT-APPL-6-219 678**, NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113, U.S.A.

Tube d'émission à gyrotron/309

remain within an imaginary envelope as they travel forward toward the end collector plate. The apertures in the collector plates are at least as large in diameter as the 5 envelope at any particular axial position. Write: **PAT-APPL-6-220 212**, NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113, U.S.A.

Paliers magnétiques linéaires/309

provide signals proportional to shaft positional displacement and velocity within the housing and which generate control signals of the proper amplitude and direction to energize the coal windings in order to axially center the shaft within the housing while maintaining a predetermined stiffness and dampening characteristic. A bumper magnet assembly is located at one end of the housing to dampen any axial displacement of the armature member. Write: **PAT-APPL-6-220 213**, NASA, Goddard Space Flight Center, Mail Code: 204, Greenbelt, Maryland 20771 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Dispositif de fixation pour une presse à étamper à chaud/309

tively holds each of the workpieces. Write: **PAT-APPL-6-225 499**, NASA, Goddard Space Flight Center, Mail Code: 204, Greenbelt, Maryland 20771 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Système de séparation interlaminaire partielle pour matériaux composés/309

cent laminae of a composite formed from prepreg tapes to thereby permit laminae adherence through the perforations and produce a composite structure having improved

physical property characteristics. Write: **PAT-APPL-6-119 337**, NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Pulsed Phase Locked Loop Strain Monitor/309

Filed October 23, 1980, by NASA. The RF output of a voltage controlled oscillator (VCO) is periodically gated by a gate to a transducer which produces acoustic waves in a bolt. The reflected acoustic waves are converted to electrical signals by a transducer and gated by a gate to a mixer. The mixer also receives the output from the VCO and produces an output which is filtered by a low pass filter. The output of the filter is a DC signal proportional to the phase difference change from a fixed phase difference between the two input signals to the mixer. This DC signal is sampled at an instant and held by a circuit in response to the P signal. The output of the circuit is integrated by an integrator and then applied to the VCO to change the frequency of the VCO such that the phase difference between the two inputs to the mixer remains at said fixed phase difference. The frequency of the VCO is a measure of the change in strain of the bolt. Write: **PAT-APPL-6-199 767**, NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Moniteur de tension mécanique à boucle de verrouillage de phase pulsée/309

Thermoset-Thermoplastic Aromatic Polyamides/309

Filed October 23, 1980, by NASA. A composition and method for increasing the use temperature of polyamides based on the incorporation of a latent cross-linking agent into the polymer backbone, wherein high temperature performance is achieved without sacrificing solubility or processability are described. Write: **PAT-APPL-6-199 768**, NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Polyamides aromatiques thermodurcissables-thermoplastiques/309

Receiving and Tracking Phase Modulated Signals/309

Filed May 7, 1980, by NASA. An apparatus and technique are described for receiving and tracking analog or digital phase modulated signals from 0 deg to 360 deg phase shift. In order to track a signal with many phases, a detector discerns the phase modulation of the incoming signal and a phase shifter generates a negative phase shift opposite in angle to the detected phase angle. This produces a converted series sideband component barrier signal. The residual carrier signal and the converted series sideband component carrier and added together to produce a tracking carrier signal. The tracking carrier signal is multiplied with the output from a voltage controlled oscillator in the tracking loop to obtain an error signal which drives the voltage controlled oscillator and tracks the incoming signal frequency. The technique is less susceptible to carrier interference which may degrade tracking and tracking may be performed at lower signal-to-noise ratios and for lower input signal power levels. Write: **PAT-APPL-6-147 695**, NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201, U.S.A.

Réception et poursuite de signaux à modulation de phase/309

A Method and Technique for Installing Light-Weight Fragile, High Temperature Fiber Insulation/309

Filed September 11, 1980, by NASA. Light weight insulation batting such as alumina/zirconia or preferably saffil high temperature insulation such as alumina fiber is precut into oversize elongated solution and compressed in a mold to the required thickness or cross sectional dimensions. The saturated batting is then dried in the mold and the resin cured at an appropriate temperature. The resulting rigidized batting may then be machined to the particular required shape and dimensions for installation in wiremesh sleeving or any cavity requiring heat barrier sealing. The entire assembly is subsequently heated to a temperature much greater than the resin curing temperature to effect a clean burn-off of the resin material leaving the original mineral batting material to expand into the interior shape of the containing cavity or wiremesh sleeving if such insulation is to be used as a heat seal around an openable door or hatch in a recoverable space vehicle. Write: **PAT-APPL-6-185 868**, NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201, U.S.A.

Méthode et technique d'installation d'isolant fibreux léger à haute température/309

Optical Crystal Temperature Gauge with Fiber Optic Connections/309

Filed September 12, 1980, by NASA. An optical temperature gauge is described which uses a semiconductor crystal that has a band edge shift property which is temperature dependent. An external narrow band light source provides optical excitation through an optical fiber and light energy thus passed through the crystal is conveyed by a second optical fiber to a light to electric transducer at an external location. The crystal is locatable in cryogenic or other systems, to provide remote read out. The light wavelength is varied (scanned) in a repetitive pattern in source and the instantaneous wavelength passes over the band edge wavelength during each cycle of the scan. The

Jauge thermométrique optique à cristal avec raccords pour fibres optiques/309

timing of that crossover is related to the temperature of the crystal by electronic means. Several alternative elements of instrumentation are disclosed. A variation in the basic measurement apparatus is also disclosed, in which the band gap voltage of a light source, such as a laser diode, is evaluated at the time of band edge crossover in the crystal and converted to a temperature value. Write: **PAT-APPL-6-186 881**, NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201, U.S.A.

Kinesimetric Method and Apparatus/309

Price per copy from NTIS: PC U.S. $6.50/MF U.S. $3.50, filed October 17, 1980, by NASA. The functional capability of bodies was studied. Reach as well as velocity, acceleration and force generation at various positions was determined for a body by a three dimensional kinesimeter equipped with an ergometer. A general data package indicative of performance potential of a subject body or collec-

Méthode et matériel kinésimétriques/309

tion of bodies is provided for interfacing with data characteristic of various environments. Write: **PAT-APPL-6-198 093**, NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201, U.S.A.

Improved Attachment System for Silica Tiles/309

Filed December 17, 1980, by NASA. The bond strength between a rigid, porous refractory material and a nonrigid substrate is markedly increased by densifying the face of the rigid material opposing the substrate. Densification is accomplished by wetting the refractory material and then impregnating it with a composite slurry having a particle

Meilleure adhérance des tuiles de silice/309

size to fill voids of the porous material. Write: **PAT-APPL-6-217 336**, NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201, U.S.A.

Absorbent Product and Articles Made Therefrom/309

Filed December 24, 1980, by NASA. A multilayer absorbent product is described for use in contact with the skin to absorb fluids, the product having a water pervious facing layer for contacting the skin, a first fibrous wicking layer overlaying the water pervious layer, a first container section defined by inner and outer layers of a water pervious wicking material between which is disposed a first absorbent mass, a second container section defined by inner

Produit absorbant et articles fabriqués à l'aide de ce produit/309

and outer layers of a water pervious wicking material between what is disposed a second absorbent mass and a liquid impermeable/gas permeable layer overlaying the second fibrous wicking layer. Write: **PAT-APPL-6-219 681**, NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201, U.S.A.

Containerless Melting and Rapid Solidification Apparatus and Method/309

Filed December 8, 1980, by NASA. A specimen in a closed environment is suspended in a levitating field, melted, and then cooled and solidified by the injection of a quench gas. The apparatus disclosed employs an electromagnetic levitation system and housing which is evacuated by a vacuum pump or supplied with a controlled amount of argon gas from a source through a valve. The levitation system has a coil made of copper tubing and is connected to an induction generator. A supply of quench gas is connected

Appareil et méthode de fusion et de solidification rapide sans contenant/309

to the housing by a line and valve. After a levitated specimen is melted, quenching gas of high thermal conductivity is rapidly introduced. This raises the pressure from 40 to 400 Torr, which quickly cools and solidifies the specimen. Write: **PAT-APPL-6-214 360**, NASA, Marshall Space Flight Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial correspondence to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303, U.S.A.

Method of Bonding Plasticized Elastomer to Metal and Article Produced Thereby/309

Filed December 19, 1980, by NASA. A plasticized elastomer is securely bonded to a metal surface by interposing between the adhesive coated metal surface and the elastomer a sheet of material obtained by combining adhesive with a portion of the elastomer that has been treated to remove plasticizers. The assembly is then heated in a mold under pressure. The sheet material is made up by dissolving a portion of the plasticized elastomer in an organic solvent, casting the solution, exposing it to a vacuum to remove the solvent and plasticizers, dissolving the deplasticized material in liquid adhesive and casting and drying the resulting liquid. Write: **PAT-APPL-6-218 585**, NASA, Marshall Space Flight Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial correspondence to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303, U.S.A.

Méthode de liaison d'un élastomère plastifié à un métal, et fabrication d'un article par cette méthode/309

Rhomboid Prism Pair for Rotating the Plane of Parallel Light Beams/309

Filed December 24, 1980, by NASA. An optical system for rotating the plane defined by a pair of parallel light beams is described. In one embodiment, a single pair of rhomboid prisms has respective input faces disposed to receive respective input beams. Each prism is rotated about an axis of revolution coaxial with each of the respective input beams by means of a suitable motor and gear arrangement. This causes the plane of the parallel output beams to be rotated relative to the plane of the input beams. In a second embodiment, two pairs of rhomboid 15 prisms are provided. In a first angular orientation of the output beams, two prisms merely serve to decrease the lateral displacement of the output beams in order keep the beams in the same plane as the input beams. In a second angular orientation of the prisms, the input faces of the second pair of prisms are brought into coincidence with the input beams for rotating the plane of the output beams by a substantial angle such as 90 deg. Write: **PAT-APPL-6-219 640**, NASA, Ames Research Center, Mail Code: 200-11A, Moffett Field, California 94035 and send a copy of your initial correspondence to Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111, U.S.A.

Paire de prismes rhomboédriques utilisée pour faire tourner le plan de faisceaux lumineux parallèles/309

An Electro-Optical Doppler Tracker Means and Method for Optical Correlation of Synthetic Aperture Radar Data/309

Filed October 9, 1980, by NASA. A beam splitter is located between a Fourier transform filter and an azimuth telescope for reflecting a portion of a modulated laser beam to a plane containing two photodiodes. The photodiodes are positioned with respect to the reflected laser beam's Gaussian distribution so that they each experience the same light intensity in the absence of a Doppler shift. As Doppler shifts occur, the Gaussian distribution shifts either in one direction or the other, thereby creating unequal light intensities and thus currents in the photodiodes. These unequal intensities are utilized to control the angle that the laser beam intersects the signal film, the angle being adjusted until each photodiode experiences the same light intensity, thereby indicating the absence of a Doppler shift. Write: **PAT-APPL-6-195 547**, Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014, U.S.A.

Moyens et méthode de poursuite électro-optique par décalage Doppler pour la corrélation optique des données de radar à ouverture synthétique/309

Tunable Injection-Locked Pulsed CO2 Laser/309

Filed November 26, 1980, by NASA. A tunable injection locked pulsed CO2 laser receives energy from a cw waveguide laser tuned by a grating to a desired lasing frequency, and fine tuned on either side of the frequency selected by a piezoelectric transducer which adjusts the cavity length of the laser. A grating of the laser is adjusted to the same lasing frequency of the laser. A synchronous demodulator and integrator are provided in a servo loop to maintain the pulsed laser to the tuned frequency set by the injected energy. The synchronous demodulator servo signal is applied to a piezoelectric transducer that adjusts the resonant cavity length of the pulsed gas laser. Write: **PAT-APPL-6-210 490**, Mr. Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014, U.S.A.

Laser à CO_2 pulsé, accordable, à injection asservie/309

Method of Forming Frozen Spheres in a Force-Free Drop Tower/309

Filed December 24, 1980, by NASA. A technique is disclosed for uniformly shaping hollow glass spheres by the effects of surface tension acting on bubbles of glass in its molten state. The method is characterized by the steps of establishing a downwardly flowing stream of air accelerated at a one-G rate of acceleration through a drop tower, introducing into the stream of air free-falling bubbles of molten glass, and freezing the bubbles in the stream as they are accelerated at a one-G rate of acceleration. Write: **PAT-APPL-6-219 680**, Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014, U.S.A.

Méthode de formation de sphères par solidification dans une tour de tombée en chute libre/309

An Improved Solid Electrolyte Cell/309

Filed December 24, 1980, by NASA. A solid electrolyte cell is disclosed which includes a body of solid gas-conductive electrolytes having mutually spaced surfaces on which a number of mutually spaced electrodes are deposited. Strips of bare substrate are interposed between the electrodes so that currents of ionic gas may be established between the electrodes. Electrical resistance for the cells is lowered and the gas conductivity is enhanced. Write: **PAT-APPL-6-220 214**, Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014, U.S.A.

Cellule à électrolyte solide améliorée/309

CAT Altitude Avoidance System/309

Filed January 12, 1981, by NASA. A method and apparatus are described for indicating the altitude of the tropopause or of an inversion layer in which clear air turbulence (CAT) may occur and the likely severity of any such CAT. A plot of altitude (with respect to an aircraft) versus temperature of the air at that altitude can indicate when an inversion layer is present and can indicate the altitude of the tropopause or of such an inversion layer. The plot can also indicate the severity of any CAT in an inversion layer. If CAT was detected in the general area, then the aircraft can be flown at an altitude to avoid the tropopause or inversion layer. The detection method can also be utilized to enable an aircraft to fly at an altitude at which the winds are most favorable for reducing fuel consumption. Write: **PAT-APPL-6-224 231**, Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014, U.S.A.

Système d'évitement des zones de turbulence en air limpide/309

Tactile Sensing System/309

Filed January 16, 1981, by NASA. A tactile sensing system comprises a sheet of flexible material on top of a semiconductor layer on which an array of electrodes is formed. Computing elements are present in the layer and are connected via lines to the electrodes, to each other and to an external sequence controller and a manipulator collector. The electrodes, the computing elements and the interconnecting lines are formed by large scale integration, thereby resulting in a relatively small sensor with a dense array of electrodes convertible to the external circuitry by a minimum number of wires. Write: **PAT-APPL-6-225 500**, Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014, U.S.A.

Système de commande à effleurement/309

Solar Power Satellite System/309

Filed September 29, 1980, by NASA. A solar power satellite system is provided which includes a power satellite and at least one reflector satellite. The power satellite, which constitutes the great mass of the system, has a geosynchronous, gravity gradient stabilized orbit. The power satellite comprises a planar array of solar cells, with the plane of the satellite being oriented so as to be parallel with the plane of its orbit. An antenna or antennas mounted on the power satellite are powered by the solar cells and serve to transmit microwave energy back to earth. The shape and orbit of the reflector satellite are controlled so that solar radiation is focused by the reflector satellite onto the solar array of the power satellite. Write: **PAT-APPL-6-191 747**, Assistant General Counsel for Patent Matters, NASA, Mail Code GP-2, Washington, D.C. 20546 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Système à satellite de puissance solaire/309

Case Mounted Mooring System/309

Filed November 26, 1979, by the Department of the Navy. A system is disclosed for mooring a buoyant case such as a marine mine or other marine device at a preselected depth below the surface of the water in which the case was launched. After the case has been launched, together with an attached anchor, the anchor and case separate to the extent of a resilient line as they descend through the water. When the case passes through a first preselected depth the resilient line is released from the case, thereby permitting a mooring line, which is connected in series be-

Dispositif d'amarrage sous carter/309

tween the resilient line and the case, to payout. As the mooring line unwinds the anchor descends to the ocean floor while the buoyant case ascends toward the surface. When the case ascends through a second preselected depth, a brake assembly is activated to stop the payout of the mooring line. After the case has been positioned at the second depth, a locking assembly fixes the position of the case at the mooring depth. Write: **PAT-APPL-6-097 480**, NAVY.

Self-Aligned Recessed Gate with Low Source Resistance/309

Filed June 16, 1980, by the Department of the Navy. A self-aligned recessed gate with low source resistance has an epitaxial structure with an n(+) contact layer. Source and drain contacts are put down, followed by resist spin-on and gate exposure. The gate channel is anodically thinned to expose the n active layer. The gate metal is evaporatively applied through the same resist opening which defines the

Grille en retrait à autoalignement et à faible résistance de source/309

gate channel. An insulating layer is laid down between the resist and the FET structure with ohmic contacts to prevent resist lifting, and a barrier layer is put over the ohmic contacts to provide insulating layer adhesion. The result is a sub-micron gate length FET having low source impedance. Write: **PAT-APPL-6-160 880**, NAVY.

Flexible Loop Slip Ring Brush/309

Filed July 14, 1980, by the Department of the Navy. Flexible wire loop slip ring brushes for use in miniaturized gyroscopes. A plurality of flexible wire loop brushes hug or embrace opposite peripheral sides of respective slip rings in resilient sliding contact over a substantial arc for estab-

Bagues de collecteur souples/309

lishing a redundancy of 'a' spots for assured paths through which electrical current may pass with minimal resistance. The rings and the brushes are gold alloy which in sliding contact provide good electrical conductivity and low noise. Write: **PAT-APPL-6-167 866**, NAVY.

Electronically Simulated Rotating Prism for Ultrasonic Beam Scanning/309

Filed August 1, 1980, by the Department of the Navy. A method and apparatus are described for electronically scanning a spherically focused beam in a c-scan mode using a spiral path rather than a traditional raster scan pattern. Essential to the technique is an electronically

Prisme à rotation simulée électroniquement pour le balayage d'un faisceau d'ultra-sons/309

simulated rotating ultrasonic prism. The technique allows use of a single delay line with simple connections and no requirements of multiple mixing. Write: **PAT-APPL-6-174 292**, NAVY.

Improved Droop Stop for Fully Articulated Rotor/309

Filed August 7, 1980, by the Department of the Navy. An improved droop stop for a fully articulated helicopter rotor is provided wherein curved mating surfaces are employed between the spindle pad and the centrifugal droop stop static support arm to provide surface rather than line con-

Butée basse améliorée pour rotor articulé/309

tact therebetween during centrifugal operation. The centers of the curved surfaces are coincident at the pivot point of the droop stop centrifugal arm to force the downward load of the blade to pass through this pivot point. Write: **PAT-APPL-6-176 151**, NAVY.

Michael Reaction of Methylenemalonates with Nitro Compounds/309

Filed August 20, 1980, by the Department of the Navy. This invention relates to organic esters and more particularly nitro-substituted malonates. The reaction of diethyl methylenemalonate with diethyl malonate catalyzed by piperidine or potassium hydroxide has been reported in the literature. In the area of nitroalkane chemistry, the Michael reaction with alpha beta-unsaturated carbonyl compounds is one of the most useful methods of introducing func-

Réaction de Michael des méthylènemalonates avec des composés nitrés/309

tionality. However, nitro- and fluoronitro-substituted malonates have not been prepared in the prior art. Because of the reactivity of the malonates, these compounds would be valuable intermediates in the synthesis of other nitro- and fluoronitro-substituted compounds and polymers for use in propellants and explosives. Write: **PAT-APPL-6-179 863**, NAVY.

Safety Selector Switch/309

Filed September 19, 1980, by the Department of the Navy. A safety selector switch for preventing accidental energization of an electrical circuit is disclosed. A plurality of circular discs, each having a cut-out portion in its periphery, are mounted on a shaft of an electrical component, such as a rotary switch. A second shaft is provided which is translatable in a direction parallel to the longitudinal axis of the shaft of the electrical component, and an arm is provided on said second shaft and is selectively positionable in each cut-out portion of said circular discs to limit rotation of the shaft of the electrical component. Continued rotation of the shaft of the electrical component can only be made by alternately rotating said shaft of said electrical component and translating said second shaft to move said arm to a cut-out portion of an adjacent annular disc. One of said circular discs is of greater diameter than the remaining discs and is provided with a second cut-out portion to form a passageway for light. A light source is positioned on one side of the greater diameter disc and a light detector is positioned on the opposite side of the greater diameter disc such that light from said light source can only reach the light detector by passing through the second cut-out portion. Write: **PAT-APPL-6-188 654**, NAVY.

Sélecteur de sécurité/309

Phase Controlled Shuttering System with Selectable Shuttered and Unshuttered Modes/309

Filed September 29, 1980, by the Department of the Navy. A shutter for an electro-cinematographic camera has synchronizing provisions to make high-speed exposures during the retrace interval of associated viewing equipment. Provision is also made for rapid change to unshuttered operation without use of a monitor by a positive lock mechanism. Write: **PAT-APPL-6-191 599**, NAVY.

Obturateur commandé en phase avec modes d'obturation et de non-obturation/309

Method for the Separation of Uranium Isotopes/309

Filed November 3, 1980, by the Department of the Navy. A method for the separation of uranium isotopes, particularly U235 is disclosed. The method employs a frequency selective laser irradiation of an adiabatically cooled beam of UF6 molecules, followed by the 'chemionization' i.e., SbF5 + UF6 SbF6(-) + UF5(+) of the selectively irradiated UF6 molecules, and finally separates the favored U235F5(+) product. Write: **PAT-APPL-6-206 403**, NAVY.

Méthode de séparation des isotopes de l'uranium/309

Multiple Thin Film Absorption of Reflected Substrate Modes in Waveguide System/309

Filed November 25, 1980, by the Department of the Navy. This application deals with the reduction of light reflections in substrate modes. The use of absorbing multilayer thin-film light interference coatings on the backside of a LiNbO3 substrate provides an optical system which substantially reduces reflected substrate modes in integrated optical spectrum analyzers at around 8300 A wavelength, or at other selected wavelengths, over a broad range of incident angles by selection of individual film thickness and optical constants. Write: **PAT-APPL-6-210 188**, NAVY.

Absorption par couches minces multiples des réflexions du substrat dans les systèmes à guide d'ondes/309

Refractory Passivated Ion-Implanted GaAs Ohmic Contacts/309

Filed December 10, 1980, by the Department of the Navy. This invention provides a method of attaining n(+) regions with fine planar geometry in the source and drain of GaAs devices utilizing ion implantation which improves Ohmic contact with a refractory film. A layer of TiW refractory film is deposited on GaAs, Si29 ions are implanted in the GaAs through the refractory film so that the peak concentration is no more than approximately 100A below the TiW-GaAs interface. The entire structure is then annealed. A gold overlay is then deposited on the TiW layer to which electrical contacts may be attached and by which the contact resistivity is measured. Typical specific contact resistivity values are in the low 0.000001 ohm/sq cm range. Write: **PAT-APPL-6-214 926**, NAVY.

Contacts ohmiques à l'arséniure de gallium, à implantation d'ions, passivés par une couche réfractaire/309

Safing and Arming Mechanism/309

Filed December 15, 1980, by the Department of the Navy. This invention relates to a safing and arming device with a detonator rotor contained therein and being associated with an explosive train. The detonator rotor is mounted for rotational movement on a shaft connected to a metal housing. The small cylindrical rotor has three openings that contain three detonators in an angular configuration. This configuration gives new and unexpected results in terms of fuze design simplification and cost reduction. Write: **PAT-APPL-6-216 400**, NAVY.

Mécanisme d'armement et de sûreté/309

Improved Pseudo-Atmospheric Noise Generator with Control of Temporal Characteristics/309

Filed December 15, 1980, by the Department of the Navy. An improved pseudo-atmospheric noise generator includes the capability for producing noise in the VLF/LF spectrum with known amplitude probability distributions while controlling the temporal characteristics of the simulated impulses. The outputs from a number of pseudo-random bit generators are selected by a microprocessor in accordance with expected or anticipated atmospheric disturbances from a number of geographical regions. The microprocessor selected outputs are fed to a digital-to-analog converter which feeds the converted signals to a summer. An independent Gaussian noise source is coupled to the summer and the outputs from the Gaussian noise source and the digital-to-analog converter are combined to create a composite pseudo-atmospheric noise signal. The improvement also includes capability for self-testing and set up. Write: **PAT-APPL-6-216 715**, NAVY.

Générateur de bruit pseudo-atmosphérique amélioré avec commande des caractéristiques temporelles/309

Adaptive Digital Communication System/309

Filed December 15, 1980, by the Department of the Navy. Variable rate, bidirectional digital communication is provided by an apparatus composed of a variable rate Manchester encoder/decoder coupled to a modulator which produces signals appropriate for transmission, and to a demodulator which extracts information from transmitted signals. Write: **PAT-APPL-6-216 878**, NAVY.

Système de transmission numérique polyvalent/309

Improved Electrolyte for Lithium-Thionyl Chloride Battery/309

Filed December 17, 1980, by the Department of the Navy. A lithium, thionyl chloride battery is provided with an electrolyte which makes it safe under a reverse voltage condition. The electrolyte is niobium pentachloride which is dissolved in the thionyl chloride. Write: **PAT-APPL-6-217 269**, NAVY.

Electrolyte amélioré pour les batteries au lithium et au chlorure de thionyle/309

Simplified Fabrication Method for High-Performance FET/309

Filed December 17, 1980, by the Department of the Navy. A method for making reproducible FET's with gate dimensions in the submicrometer range, reduced source-gate channel resistance, and reduced gate and source contact resistances comprising forming, in order, on a semi-insulating substrate of GaAs, an N-type GaAs layer, an (N+) GaAs layer and an (N+ +) Ge layer, using a photolith process with a mask to form the gate channel region therein, forming a refractory metal layer covering the whole top of the device, forming a gold layer on the refractory metal, using a photolith method with a common mask and etch process to cut the gate, source and drain electrodes to their desired sizes and using a plasma etch process to cut away, except for a stalk supporting the gate Au electrode, the remaining refractory metal from a portion of the gate channel lying between the gate and source electrode region and lying between the gate and drain electrode region. Write: **PAT-APPL-6-217 306**, NAVY.

Méthode de fabrication simplifiée de transistors à effet de champ à hautes performances/309

High Performance Bipolar Microwave Transistor/309

Filed December 19, 1980, by the Department of the Navy. A high-frequency transistor and method of making same wherein the parasitic capacitance between base and collector is reduced. The collector layer of GaAs is impregnated with boron ions to form an insulative region under the base contact structure thereby reducing the capacitance in this region and leaving only the region underlying the emitter structure as the active transistor region. Write: **PAT-APPL-6-217 977**, NAVY.

Transistor bipolaire hyperfréquence à hautes performances/309

Low Drag Underwater Vehicle Utilizing Boundary Layer Suction/309

Filed December 23, 1980, by the Department of the Navy. A low drag underwater vehicle utilizing boundary layer suction is provided wherein the vehicle includes a hull having nose, mid and tail sections. A permeable shell is mounted in a spaced relationship about the hull so that ambient water can be drawn into the space there-between. The space between the permeable shell and the hull is divided into nose, mid and tail compartments. A pump is provided. Separate passageways are provided for connecting the nose and tail compartments to the pump and for connect-

Véhicule sous-marin à faible traînée avec aspiration à travers la couche limite/309

ing the mid compartment to the pump. The pump is capable of pumping the nose and tail compartments at a greater rate per unit area of permeable shell than the mid compartment. With this arrangement boundary layer suction through the permeable shell is greater at the nose and tail portions of the underwater vehicle than at the mid portion where the tendency toward turbulence is not as severe. Write: **PAT-APPL-6-219 463**, NAVY.

Radar Tracking System/309

Système de poursuite radar/309

Filed December 23, 1980, by the Department of the Navy. A monopulse radar tracking system having clutter reduction capability. The sampled three-coordinate video data is time-averaged before being processed in the digital control processor that computes azimuth and elevation error to control the antenna for proper positioning. Write: **PAT-APPL-6-219 662**, NAVY.

Lightweight Concrete Using Polymer Filled Aggregate for Ocean Applications/309

Béton léger à base de granulats enrobés de polymère à usage maritimes/309

Filed December 24, 1980, by the Department of the Navy. This invention relates to a structural grade lightweight concrete that is especially suited for ocean applications. The lightweight concrete uses regular lightweight aggregate particles that have been modified by filling the voids within the particles with a polymeric material. The polymer-filled aggregate particles are then bonded together using a cementitious material to form concrete. Typically Portland cement is used as the binder to produce a lightweight concrete for construction of ocean structures. Write: **PAT-APPL-6-219 689**, NAVY.

Simple Method for Fabricating Multimode Fiber Optic Access Couplers/309

Méthode simple de fabrication de coupleurs d'accès multimode de fibres optiques/309

Filed January 2, 1981, by the Department of the Navy. A method of coupling at least a pair of optical fibers together assures predictable coupling ratios and structural integrity. First, the fibers are prepared by coating or dispersing a material (e.g., a metal oxide) on or in them to control the surface tension of their exposed surfaces so that fusion occurs within predictable, extended periods of time. Next, the fibers are twisted together to assume a mutally helical relationship and to apply a small tensional stress on them and they are placed in an inert gas maintained at a predetermined pressure. A coaxially disposed tungsten coil heats them and fuses the twisted, stretched fibers together to effect a desired coupling. Stretching the twisted fibers as they are being fused together creates uniform tapered sections which are needed to induce proper coupling. The rate of heating and fusing the inert gas and its pressure, and the force exerted during stretching are all factors determinative of the degree of coupling. These factors are more precisely regulatable due to the addition of the material such as metal oxide that controls the surface tension of the fibers to be coupled. Write: **PAT-APPL-6-222 113**, NAVY.

Unsymmetrical Polynitrocarbonates and Symmetrical 1,3-Bis(Halo- and Nitroalkyl Carbonyldioxy)-2,2-Dinitropropanes and Methods of Preparation/309

Polynitrocarbonates asymétriques et 1,3-bis(halo- et nitroalkylcarbonyldioxy)-2,2-dinitropropanes symétriques; méthodes de préparation/309

Filed January 13, 1981, by the Department of the Navy. This invention relates to organic carbonates and more particularly to nitro substituted organic carbonates. In order to prepare unsymmetrical carbonates, it is necessary to react a chloroformate of an alcohol with a second alcohol. The general method for preparing chloroformates is to react an alcohol with an excess of phosgene (poisonous gas) in the presence of a base as an acid acceptor. Inevitably a greater or lesser amount of the carbonate is formed, as a by-product, which lowers the yield and requires separation of the product. In addition, nitroalcohols in the presence of base, have a tendency to deformylate, which also lowers the yield of chloroformate. A third factor is that nitro substituted diols such as 2,2-dinitropropan-1, 3-diol form as major products linear carbonates and cyclic carbonates. Write: **PAT-APPL-6-224 776**, NAVY.

Servo Control System for the Positioning of an Apparatus/309

Système asservi pour la mise en position d'un appareil/309

Filed January 22, 1981, by the Department of the Navy. This invention relates to a servo control system for the positioning of a projector comprising a direct current motor having the projector connected to the shaft of the motor, and a digital computer for providing command signals to move the projector to a programmed position at a programmed velocity within a predetermined time period. A potentiometer produced an electrical signal indicative of the actual position of the projector, and a tachometer produces an electrical signal indicative of the actual velocity of the projector. Feedback means, in turn, provides a position error signal indicative of the difference between the

programmed position and the actual position of the projector, provides a velocity error signal indicative of the difference between the programmed velocity and the actual velocity of the projector, and varies, in response to the position and velocity error signals, the voltage level of the command signal such that the projector will attain the programmed position within the predetermined time period. A forward feed servo enhancer generates, in response to the command signals, a forward feed enhancement signal which when combined with the command signals will reduce the velocity error signal to approximately zero volts. Write: **PAT-APPL-6-227 311**, NAVY.

Efficient, Precompression, Bandwidth-Tolerant Digital Pulse Expander-Compressor/309

Filed January 22, 1981, by the Department of the Navy. This invention relates to a digital pulse expander-compressor for use in pulse compression radars and having the advantage of precompression bandwidth tolerance. The pulse expander-compressor exploys a discrete Fourier transform circuit and multi-stage delay line feeding inputs to the discrete Fourier transform circuit to generate outputs. An arrangement of delay stages differentially delays the output subpulses from the discrete Fourier transform circuit, and a coherent summer adds the real and imaginary parts of the signals from the delay lines. The delay stages delay subpulses by clock pulse intervals. The pulse expander-compressor generates and compresses a polyphase code pulse. Write: **PAT-APPL-6-227 323**, NAVY.

Compresseur-expanseur d'impulsions numériques, à rendement élevé, à précompression et à grande tolérance de largeur de bande/309

Waveguide Switch/309

Filed January 22, 1981, by the Department of the Navy. This invention discloses a high-speed waveguide switch diverting energy among a plurality of waveguides. This switch is composed of a rotor, a rotor housing, biasing means, housing for the biasing means, and an electronic circuit to contain the biasing means. The rotor and rotor housing are of conventional design. The biasing means is composed of two rotary solenoids mechanically linked through a geneva drive and wheel to the rotor. The electronic circuit is composed of a power supply circuit, a control circuit, and a motor circuit being the coils of the rotary solenoids. An external device such as a radar supplies a switching command signal to the control circuit. Various flip-flops are actuated based on the leading or trailing edge of the switching command signal. Signals from these flip-flops actuate switches in the power supply circuit so that a sequence of driving and braking currents is transmitted to the coils of the rotary solenoids. Write: **PAT-APPL-6-227 337**, NAVY.

Sélecteur pour guide d'ondes/309

Potting Techniques for Fiber Optical Couplers/309

Filed January 22, 1981, by the Department of the Navy. This invention relates to a coupler for coupling light from one single mode optical fiber to another. Two or more optical fibers are provided in twisted or braided adjacently so that the evanescent field of one optical fiber is coupled into at least one other fiber for dividing the power therebetween. Means are provided for coextensively supporting and encapsulating the optical fibers to stabilize and protect them under demanding environmental conditions resulting from temperature variations, physical shock and vibration. Write: **PAT-APPL-6-227 340**, NAVY.

Techniques d'encapsulation de coupleur de fibres optiques/309

Wide Band Data Processing Technique/309

Filed January 22, 1980, by the Department of the Navy. The present invention relates generally to radar processing, and more particularly to the recording to echoes from high resolution radar in real time. A radar system transmitting a radar signal will receive echo returns at different time intervals from a plurality of targets with the time intervals depending on the relative distance of each target from the radar transmission source. That is, a close target return will reach the source relatively sooner than a far target return. It is apparent that the returns from a plurality of targets all resulting from one radar transmission are time sequential and, by identifying each target with a time range, one target return may be discriminated from all other target returns. In order to perform the association of each target with a particular time slot, the time receipt of the target range of interest may be divided into time bins/range-cells. Then each time-bin/range-cell may be separately interrogated to determine the characteristic of any targets that may be present. It is a common practice in the prior art to utilize a clock controlled delay line such as, for example, a clock-controlled shift register, as a range buffer so that the storage bits of the shift register define range bins. Write: **PAT-APPL-6-227 568**, NAVY.

Technique de traitement de données à large bande/309

N,N,N', N'-Tetrakis(2-Fluoro-2, 2-Dinitroethyl) Oxamide and a Method of Preparation Thereof/309

Filed January 23, 1981, by the Department of the Navy. This invention relates to explosive compounds and more particularly to explosive nitroorganic compounds. High density explosives are of primary interest because the detonation pressure (a measure of explosive performance) increases with the square of the density of the explosive. Thus a relatively small increase in explosive density can effect a relatively large increase in explosive power. Despite the huge number of explosives that are known, relatively few are high density explosives (density greater than 1.90 g/ml). Extremely few of these high density explosives are melt castable in addition to being thermally and hydrolytically stable. The two most commonly used dense explosives, HMX and 1,3,5-triamino-2,4,6-trinitrobenzene (TATB), are not melt castable. 1,3,5-trifluoro-2,4,6-trinitrobenzene, a dense melt castable explosive, (mp 80-81) is not chemically stable to water. Therefore, it would be desirable to provide a high density, energetic, melt castable explosive which is thermally and hydrolytically stable. Write: **PAT-APPL-6-228 032**, NAVY.

Mode de préparation du N,N,N',N'-tétrakis (2-fluoro-2,2-dinitroéthyl)-oxamide/309

Licensing Opportunities Through Research Development Corporation of Japan, Japan

The following developments are offered for manufacture in Canada. Enquiries concerning the acquisition of the Canadian manufacturing rights should be addressed to the contact indicated in each case and a copy of your initial correspondence sent to: 1(Mr. Misao Yajima, Manager, Department of Patent License, Research Development Corporation of Japan, 5-2, Nagata-cho 2-chome, Chiyoda-ku, Tokyo 100, Japan and 2) Commercial Division, Canadian Embassy, 3-38 Akasaka 6-Chome, Minato-ku, Tokyo 107, Japan. Please quote the full title and reference number of the item you are interested in.

JRDC 051

Heat Insulating Wall/309

In this method, the plastic adjustible supporters SCREW PACKIN® s are fixed to the basement wall at a certain interval, on which special reinforced board is attached and the space between the basement wall and the attached board is filled with urea resin foamed at the construction site. This method permits an integrated insulating wall of any complex shape with no seam and no opening in its heat insulating material to be made. This system assures the accurate verticality of the wall and adjustable SCREW PACKINs support the board at points so that foamed urea resin for heat insulation can be injected to fill the space between the basement wall and the board for heat insulation.

Advantages

* Ease of work execution, high insulating property, and high acoustic absorption
* Excellent heat insulating effect because of the adjustable SCREW PACKINs support at points, unlike conventional methods which use frames as supporters
* Shortened work period because the process is systematized
* The process ensures excellent heat insulation, soundproofness and freedom from mildew.

See illustration page 60. Write: Tomokazu Otsuki, Manager, Development Department, FUKUVI CHEMICAL INDUSTRY CO., LTD., 33-6, Sanjuhachisha-cho, Fukui-shi, Fukui 910, Japan.

Possibilités d'acquisition de licences par l'intermédiaire de la Research Development Corporation of Japan (Japon)

Les développements suivants sont offerts pour la fabrication sous licence au Canada. Les demandes de renseignements concernant l'acquisition des droits de fabrication au Canada doivent être adressées au contact tel qu'indiqué dans chaque cas et faire parvenir une copie de votre correspondance initiale à: 1) M. Misao Yajima, Manager, Department of Patent License, Research Development Corporation of Japan, 5-2, Nagata-cho 2-chome, Chiyoda-ku, Tokyo 100 (Japon) et 2) Division commerciale, Ambassade du Canada, 3-38 Akasaka 6-Chome, Minato-ku, Tokyo 107 (Japon). Prière d'indiquer le titre complet et le numéro de référence de l'article qui vous intéresse.

JRDC 051

Murs isolants/309

La présente méthode consiste à fixer au mur d'un sous-sol à un intervalle donné, des supports de plastique réglables SCREW PACKIN® auxquels est attaché un panneau renforcé spécial. L'espace vide entre le mur du sous-sol et le panneau est ensuite rempli de résine d'urée transformée en mousse sur le chantier. Cette méthode est caractérisée par le fait qu'on peut construire un mur isolant intégré de toute forme complexe sans joints et sans ouvertures dans son isolant thermique. Ce système assure une verticalité exacte du mur et les SCREW PACKINs réglables supportent le panneau à certains points seulement de façon que l'isolant thermique de résine d'urée puisse être injecté pour remplir l'espace entre le mur du sous-sol et le panneau.

Avantages

* Facilité d'exécution des travaux, niveau d'isolation élevé et forte absorption acoustique.
* Excellente isolation thermique car les SCREW PACKINs réglables supportent le panneau en certains points, contrairement à la méthode traditionnelle, qui utilise des charpentes comme support.
* La durée et le coût des travaux sont réduits grâce au procédé systématisé.
* Le procédé assure une excellente isolation thermique et acoustique et élimine les problèmes d'humidité.

(Voir l'illustration page 60.) Écrire à: Tomokazu Otsuki, Manager, Development Department, FUKUVI CHEMICAL INDUSTRY CO., LTD., 33-6, Sanjuhachisha-cho, Fukui-shi, Fukui 910 (Japon).

JRDC 052

Perforated Quaywall/309

This technology relates to a vertical cellular block type quaywall intended for effective wave absorption. This technology is intended to provide each cellular block with two reservoirs in order to absorb the energy of waves. The conventional vertical quaywalls, provided with a single reservoir per block, have been effective only for waves with limited wave frequencies. The quaywall by this technology can easily cause phase differences of waves since each block has two reservoirs and thus demonstrates excellent absorbing capability for waves of a wide range of wave frequencies. When used as sea walls along coastal roads, this quaywall prevents waves from lapping the roads because of the large capacity of their reservoirs and can maintain beautiful coastal views because of the geometrical profile of the cellular blocks.

Advantages

* The reflection coefficients of waves can be held to 40 per cent or less;
* Blocks are independent each weighs 10 to 30 tons;
* Wave energy can be reduced by 15 to 60 per cent; and
* The crest of an incoming wave can be made lower by the function of the two reservoirs; the width of the quaywall can be greatly reduced and the height of the quaywall can be lower;
* By alternately filling one of the two reservoirs with concrete, blocks can be built into one body for increased quaywall stability.

The technology is in production. Write: Tetsuo Yoshimi, Deputy Manager, Harbour Engineering Department, IIDA CONSTRUCTION CO., LTD., 15-25, Higashihie 2-chome, Hakata-ku, Fukuoka 812, Japan.

JRDC 071

Silo with a Device for Taking Out Contents Continuously and Arbitrarily/309

The silo in this technology is cylindrical with a flat bottom provided with a gear box in the center which makes a screw revolve in the horizontal plane while rotating. The screw facilitates, gathering the powdery material to the center while agitating it so that a fixed volume of material can be taken out through the opening in the center.

Advantages

* Construction costs are as low as approximately half those of the commercialized ones. The cost for a 50 m^3 silo, for example, is five million yen in this method.
* The structure of the silo can be a closed type to prevent powder particles from being scattered around.
* The floor space requirement is small.

The technology is in production. See illustration page 60. Write: Tokusaburo Suzue, President, SUZUE CONSULTING OFFICE, 1-29, Kitadekijima-cho, Tokushima-shi, Tokushima 770, Japan

JRDC 052

Mur de quai perforé/309

Cette technique se rapporte à un mur de quai à paroi verticale de type à blocs cellulaires conçu pour une absorption efficace des vagues. Chacun des blocs cellulaires constituant le mur est muni de deux réservoirs afin de pouvoir absorber l'énergie des vagues. Les murs de quai à paroi verticale traditionnels ne comportant qu'un seul réservoir par bloc ne sont efficaces que pour des fréquences de vague limitées. Le mur de quai construit selon cette nouvelle technique peut facilement créer des différences de phase des vagues puisque chaque bloc comporte deux réservoirs, permettant de démontrer un excellent pouvoir d'absorption pour des vagues de fréquences très variées. Lorsqu'il est utilisé comme digue le long des routes côtières, ce mur de quai empêche les vagues de recouvrir les routes grâce à la grande capacité de ses réservoirs. De plus, le profil géométrique des blocs cellulaires n'enlaidit pas la beauté des lieux.

Avantages

* Les coefficients de réflection des vagues peuvent être maintenus à 40 pour cent ou moins.
* Les blocs sont indépendants et pèsent entre 10 et 30 tonnes chacun.
* La force des vagues peut être réduite de 15 à 60 pour cent.
* La hauteur de la crête d'une vague peut être réduite grâce aux deux réservoirs; la largeur du mur de quai peut être nettement réduite et sa hauteur abaissée.
* Il est également possible de remplir de béton l'un des deux réservoirs en alternance pour réunir les blocs en un seul corps afin d'augmenter la stabilité du mur de quai.

Cette technique est en cours de production. Écrire à: Tetsuo Yoshimi, Deputy Manager, Harbour Engineering Department, IIDA CONSTRUCTION CO., LTD., 15-25, Higashihie 2-chome, Hakata-ku, Fukuoka 812 (Japon).

JRDC 071

Silo avec dispositif permettant d'enlever le contenu de façon continue et arbitraire/309

Le silo est cylindrique et comporte un fond plat et un système d'engrenage au centre qui permet à une vis sans fin de tourner sur le plan horizontal. La vis permet de réunir les matériaux en poudre au centre tout en les agitant de sorte qu'un volume fixe puisse être évacué par l'orifice du centre.

Avantages

* Le coût de la construction est à peu près la moitié de celui des dispositifs commercialisés. Un silo de 50 m^3, par exemple, coûte cinq million, de yen.
* La structure du silo peut être de type fermé pour empêcher les particules de poudre d'être éparpillées.
* L'espace occupé au sol est réduit.

Le dispositif est en production. (Voir l'illustration page 60.) Écrire à: Tokusaburo Suzue, Président, Suzue Consulting Office, 1-29, Kitadekijima-cho, Tokushima-shi, Tokushima 770 (Japon).

JRDC 072

Crematory System/309

Tokyo Hakuzen Kogyo company's history of cremation is nearly 60 years old. This newly developed crematory system allows cremation to be carried out automatically in a very short time (50 to 60 min.) without touching the remains during cremation, and the cremated bones are rapidly and automatically cooled (10 to 15 min.). The company offers:

1) Design and work execution of heavy-oil or kerosene burning crematory,
2) Design and work completion of gas burning crematory and,
3) Design and work completion of fully automated cremation system using heavy oil, kerosene or gas.

Advantages

* Smokeless, odorless cremation
* Short cremation time (50 to 60 min.)
* Less fuel required; 60 ℓ/body with oil or 55 m^3/body with gas.

Technology is in production. Write: Yoshito Kiyonari, TOKYO HAKUZEN KOGYO CO., LTD., 9-9, Uchikanda 2-chome, Chiyoda-ku, Tokyo 100, Japan.

JRDC 072

Dispositif d'incinération/309

La société Tokyo Hakuzen Kogyo s'occupe d'incinération depuis près de soixante ans. Ce nouveau dispositif permet l'incinération automatique en une courte période (50 à 60 minutes) sans manipulation des restes pendant l'opération. Les os incinérés sont rapidement et automatiquement refroidis (10 à 15 minutes). La compagnie offre:

1. La conception et l'exécution du travail d'un incinérateur au mazout ou au kérosène;
2. La conception et l'exécution due travail d'un incinérateur au gaz et,
3. La conception et l'exécution du travail d'un dispositif d'incinération entièrement automatisé utilisant du mazout, du kérosène ou du gaz.

Avantages

* Incinération inodore sans fumée
* Incinération rapide (50 à 60 minutes)
* Faible consommation de combustible 60 ℓ/corps avec le mazout ou 55 m^3/corps avec le gaz.

Le dispositif est en production. Écrire à: Yoshito Kiyonari, TOKYO HAKUZEN KOGYO CO., LTD., 9-9, Uchikanda 2-chome, Chiyoda-ku, Tokyo 100 (Japon).

JRDC 073

New Accumulating Conveyor System/309

The newly developed accumulating conveyor is so designed so that the shuttle beam makes reciprocal motion is arranged between double rows of gravity conveyors and materials are conveyed by means of dogs (sink-and-float type) installed in the shuttle beam. These dogs rise and fall, inter-locked with mechanical sensors which detect the presence of the preceding materials. With a crank motion, the shuttle beam moves slowly when starting and stopping, and accelerates in-between so as to keep materials from collapsing. Materials are moved on the gravity conveyors, and there is nothing that rubs the bottom surface nor line pressure that causes damage to the surface in accumulation. Being simple in mechanism and control, this accumulating conveyor has overcome many problems and changed the concept of conventional type of accumulating conveyors.

Advantages

* Reduces line pressure during storage.
* Small power consumption during storage and conveyance. The power requirement is 1/300 in storage and 1/5 in conveyance, as compared with the conventional system.
* Employment of the crank motion assures smooth operation, that is, slow motion at start and stop and accelerated motion during conveyance, thus preventing collapse of materials stacked in multi-stage.
* The conveyor system can be linked easily with other conveyor lines.

JRDC 073

Nouveau système de convoyeur à accumulation/309

Ce nouveau système de convoyeur est constitué d'une poutre-navette qui fait un mouvement réciproque entre les deux rangées de convoyeur à pesanteur et les matériaux sont déplacés par des crocs (escamotables) installés sur la poutre-navette. Ces crocs montent et descendent et sont inter-verrouillés avec les capteurs mécaniques qui détectent la présence des matériaux qui précèdent. La poutre-navette se déplace lentement avec un mouvement de manivelle au moment du démarrage et de l'arrêt et accélère dans l'intervalle pour empêcher les matériaux de tomber. Les matériaux se déplacent sur des convoyeurs à gravité et il n'y a aucun frottement de la surface inférieure ni pression en ligne qui risque d'abîmer la surface d'accumulation. Le contrôle et le mécanisme étant simple, ce convoyeur à accumulation a permis de résoudre les problèmes ci-dessus et de modifier le concept du convoyeur à accumulation conventionnel.

Avantages

* Diminue la pression en ligne pendant l'entreposage.
* Faible consommation électrique pendant l'entreposage et le transport. L'électricité est de 1/300 à l'entreposage et de 1/5 pendant le convoyage comparé au système conventionnel.
* Le mouvement de manivelle assure un fonctionnement régulier c'est-à-dire le mouvement lent au départ et à l'arrêt et une accélération pendant le convoyage pour empêcher la chute des matériaux empilés. Le système de convoyeur peut être relié facilement aux autres lignes de convoyage.

Conveyors are in production. Write: Satoshi Kaneda, Manager, Overseas Department, NAGOYA KIKO CO., LTD., Higashi 180, Ohkute-cho, Toyoake-shi, aichi 470-11, Japan.

JRDC 074

Numerically Controlled Paper Cutting Machine/309

This machine is designed to carry out automatic positioning of the backgauge. It includes an 8-bit microcomputer, input-output boards, programmable ROM, and CMOS-RAM in the control section, a rotary encoder in the detection section, and a thyristor power circuit and DC servomotor in the driving section. The cutting data is entered through the key switches on the front panel. Because of the capability of storing approximately 500 different cutting data, it is possible to call a desired setting value by just a flick of a switch. The backgauge is positioned by an external start command so that it stops at the fixed position by 4-step speed control: high speed, medium speed, medium-low speed, and low speed. For increased accuracy, a unidirectional stop system is employed. Also, the IC circuitry used in the control section assures high reliability and high response as well as excellent thermal characteristics, and the service life is semi-permanent. The contactless power drive circuit also features high dependability and high response. License of the technology is offered in North American countries. Machine is in production. Write: Noboru Itoh, Executive Vice President, ITOH IRON WORKS CO., LTD., 10-4, Aza Funada, Inuyama-shi, Aichi 484, Japan.

JRDC 075

High Efficiency Air-Cooled Heat Exchanger/309

The purposes of this technology are to improve the heat transfer coefficient of air cooled heat exchangers used in various radiators and coolers and to reduce their production cost. The basic concept of the present technology is to produce new style fins. The fins consist of upwardly convexed louver elements and plane fin plates, which have different heights from the plane fin plate. This configuration offers the following advantages.

Advantages

* The surface heat transfer coefficient is improved by 70% as compared with the wavy fins, and by about 23% as compared with the slit type fins. Moreover, the surface heat transfer coefficient per pressure loss of air flow is also superior to that of the wavy fins by about 20% and to that of the current slit type fins by about 8%. Thus, this technology contributes to energy saving.
* Ease of handling can be retained even if the fin plate thickness is reduced to approximately 0.1 mm.
* If aluminum is used for fin material, the material cost will become about half that of the wavy fins.

Ces convoyeurs sont en production. Écrire à: Satoshi Kaneda, Directeur, Service Outre-mer, NAGOYA KIKO CO., LTD., Higashi 180, Ohkute-cho, Toyoake-shi, Aichi 470-11 (Japon).

JRDC 074

Machine à trancher le papier à commande numérique/309

Cette machine est conçue pour effectuer le positionnement automatique de la barre de référence arrière. Elle comprend un microprocesseur à 8 bits, des plaquettes d'entrée et de sortie, une mémoire ROM programmable et un dispositif CMOS-RAM dans la section de commande, un codeur rotatif pour la détection et un circuit de puissance à thyristor ainsi qu'un servomoteur CC dans l'ensemble d'entraînement. Les données de coupe sont introduites par les touches sur le panneau avant. Comme l'appareil permet d'emmagasiner environ 500 données de coupe différentes, on peut appeler un réglage voulu en manoeuvrant un bouton. La barre de référence est positionnée par une commande de démarrage externe et s'arrête à la position fixée par une commande de vitesse à 4 positions haute vitesse, vitesse moyenne, vitesse moyenne basse et basse vitesse. Pour plus de précision on emploie un système d'arrêt unidirectionnel. De plus, le circuit CI utilisé dans la partie commande assure une grande fiabilité et une haute réponse ainsi que des caractéristiques thermiques excellentes et la durée de service est semi-permanente. Le circuit d'entraînement électrique sans contacte assure une grande fiabilité et une grande réponse. La société offre la licence et la technologie pour des pays d'Amérique du nord. La machine est en production. Écrire à: Noboru Itoh, Vice-Président, ITOH IRON WORKS CO., LTD., 10-4, Aza Funada, Inuyama-shi, Aichi 484 (Japon).

JRDC 075

Échangeur de chaleur refroidi à l'air à haute efficacité/309

L'objet de cet appareil est d'améliorer le coefficient de transfert de chaleur des échangeurs de chaleur refroidis à l'air utilisé dans différents radiateurs et refroidisseurs et de réduire leur coût de production. Le concept de base est de constituer de nouvelles ailettes de refroidissement. Celles-ci consistent en lamelles convexes dirigées vers le haut et en lamelles planes en plaque qui ont différentes hauteurs du plan.

Avantages

* Le coefficient de transfert de chaleur de surface est amélioré de 70%, comparé aux ailettes ondulées et d'environ 23% comparé aux ailettes de type à fente. De plus, le coefficient de transfert de chaleur de surface par perte de pression du débit d'air est également supérieur à celui des ailettes ondulées d'environ 20% et à celui des ailettes à fente actuelles d'environ 8%. Ainsi cette technologie contribue à économiser de l'énergie.
* La manipulation reste facile même si l'épaisseur des plaques est réduite à environ 0.1 mm.
* Si le matériau qui constitue les ailettes de refroidissement est l'aluminium, le coût tombe à environ la moitié de celui des ailettes ondulées.

Heat exchanger is in production. Write: Akio Takahashi, General Manager, Patent Department, HITACHI LTD., 4-1, Hamamatsu-cho 2-chome, Minato-ku, Tokyo 105, Japan.

L'échangeur de chaleur est en production. Écrire à: Akio Takahashi, Directeur Général, Service des brevets, HITACHI LTD., 4-1, Hamamatsu-cho 2-chome, Minato-ku, Tokyo 105 (Japon).

JRDC 076

Automatic Coating System/309

This technology relates to a system for automatic coating of metal products in large quantities. This automatic coating system is established by designing software to meet many technical requirements concerning (1) various coating machines, (2) environment in spray booth, (3) means for adjusting viscosity and feed of paint and for preventing paint sedimentation, (4) an automatic color-changing system, (5) a means for product transportation, and (6) a memory control system.

Advantages

* Losses can be reduced to less than 10%, compared with 30 to 50% in metallic coating.
* Coating without operator can be done depending on system programming.
* In contrast with the manual coating speed which is limited to 3 m/min., a coating speed of more than 8 m/min. can be attained.
* Paint consumption can be reduced by more than 10% and energy consumption by more than 10%.

The system is in production. Write: Takao Sugeno, Managing Director, FUSO POWER & HEAT INDUSTRIAL CO., LTD. 17-2, Shinbashi, 1-chome, Minato-ku, Tokyo 105, Japan.

JRDC 076

Dispositif de revêtement automatique/309

Ce dispositif permet le revêtement automatique des produits métalliques en grande quantité. Ce dispositif de revêtement automatique est établi par une programmation qui répond à plusieurs exigences techniques relatives (1) aux diverses machines de revêtement, (2) au local de vaporisation, (3) aux moyens permettant de régler la viscosité et l'alimentation de peinture et d'éviter le sédimentation de la peinture, (4) au dispositif de changement de couleur automatique, (5) au transport du produit et (6) au système de commande à mémoire.

Avantages

* Le pourcentage de pièces défectueuses peut être réduit à moins de 10% alors qu'il est de 30 à 50% pour le revêtement métallique ordinaire.
* Le revêtement se fait sans opérateur selon le programme du système.
* Contrairement au dispositif à revêtement manuel, la vitesse est limitée à 3m/min., mais une vitesse de revêtement de plus de 8 m/min. est possible.
* La consommation de peinture peut être réduite de plus de 10% et la consommation de l'énergie de plus de 10%.

Le dispositif est en production. Écrire à: Takao Sugeno, Directeur, FUSO POWER & HEAT INDUSTRIAL CO., LTD., 17-2, Shinbashi 1-chome, Minato-ku, Tokyo 105 (Japon).

JRDC 077

Automatic Die Lubricant Spraying Equipment/309

The conventional automatic spraying equipment commonly used is such that a lubricant is atomized with air at a nozzle to be sprayed. The present equipment is designed to atomize the die lubricant with air beforehand and to lead the atomized lubricant through a pipe to be sprayed from the pipe end. This equipment is available at a lower price, and once it is set in operation, there occurs very little deviation of spraying direction due to the light weight of spraying nozzle. Therefore the overall setting time can be remarkably reduced by providing one unit per one die. The volume of a lubricant to be sprayed can also be easily increased, resulting in enhanced cooling effect and thus enabling substantial increase in the production of die cast products. Equipment is in production. Write: Hideo Hashimoto, Work Shop Manager, HINOMARU DIECAST CO., LTD., 11, Nagatsuka-cho 2-chome, Kasugai-shi, Aichi 486, Japan.

JRDC 077

Équipement de vaporisation de lubrifiant automatique pour matrices/309

L'équipement de vaporisation automatique couramment utilisé est tel que le lubrifiant est atomisé avec de l'air dans la buse de vaporisation. L'équipement actuel est conçu pour vaporiser le lubrifiant des matrices avec de l'air au préalable et pour amener le lubrifiant dans une conduite qui assure la vaporisation à son extrémité. Cet équipement coûte moins cher et une fois qu'il est en position il y a peu de déviation de la direction de la vaporisation grâce au faible poids de la buse. Le temps de lubrification total est donc considérablement réduit puisqu'il y a un appareil pour une matrice. Le volume de lubrifiant à vaporiser peut être également facilement augmenté ce qui permet d'augmenter le refroidissement et d'augmenter aussi considérablement la production des produits de moulage. L'équipement est en production. Écrire à: Hideo Hashimoto, Directeur de l'atelier, HINOMARU DIECAST CO., LTD., 11, Nagatsuka-cho 2-chome, Kasugai-shi, Aichi 486 (Japon).

JRDC 078

Stress Improvement of Piping by Induction Heating/309

This technology is to improve the residual stress of piping by generating compressive residual stress in the inner pipe surface by local, rapid heating of the outer pipe surface with a heating coil, while cooling the inner pipe surface with flowing water or the like. This process is especially effective for the improvement of residual stress in the inner surface of welded joints of pipings, thereby enhancing the corrosion resistance and corrosion fatigue strength of various types of piping used in a corrosive environment. As such, this technique has been employed for welds of stainless steel piping used under severe conditions. The features of this technology include the following:

1) Remote-controlled operation is possible, except for the installation and removal of the heating coil.
2) The technique can be easily applied to the already assembled pipings.
3) It can be applied to different types of piping, including not only straight pipes but also bent pipes, reducers and others, ranging from small diameter pipes to large diameter pipes.
4) Relatively low processing temperature does not cause deformation or material deterioration of piping, and operation can be carried out in a short time.

Advantages

* Corrosion resistance and corrosion fatigue strength of the inner surface of piping are improved, thereby contributing to improved reliability of plants. This results in enhanced working ratio at plants, improved economical effect, together with prevention of loss that may be caused by damage to the piping.

Method is in production. Write: Akio Takahashi, General Manager, Patent Department, HITACHI LTD., 4-1, Hamamatsu-cho 2-chome, Minato-ku, Tokyo 105, Japan.

JRDC 079

Low-Noise Pipe Transfer Control System/309

In a production line of a rolling steel pipe collides with other pipe staying on the rails, which produces a loud noise and may cause mechanical damage to the surface of steel pipes. Magnetic flux is applied as a braking force to the steel pipes rolling on the rails to exert a shock at the time of collision. This magnetic flux is produced by electromagnets arranged under the skid rails. By changing the current, the braking force can be controlled arbitrarily. The electromagnets are placed below the rail top, so that they are not damaged by rolling steel pipes.

Advantages

* The usual noise level can be reduced; and
* System needs no maintenance.

JRDC 078

Amélioration de la résistance aux contraintes des conduites par chauffage à induction/309

Cette technologie permet d'améliorer les contraines résiduelles des conduites en produisant une contrainte résiduelle en compression dans la surface interne du tuyau par un chauffage local rapide de la surface externe du tuyau avec un serpentin chauffant tout en refroidissant la surface intérieure du tuyau avec un courant d'eau ou quelque chose de similaire. Ce procédé est particulièrement efficace pour l'amélioration de la contrainte résiduelle dans la surface intérieure des joints soudés des canalisations et augmente ainsi la résistance à la corrosion la résistance à la corrosion par fatigue différents types de tuyaux utilisés dans un milieu corrosif. Par exemple cette technique a été employée pour les soudures des canalisations d'acier inoxydable utilisées dans des conditions environnantes rigoureuses. Les caractéristiques de ce système:

1. Opération à commande à distance sauf pour l'installation et la dépose du serpentin du chauffage.
2. La technique peut facilement s'appliquer à des canalisations déjà installées.
3. Elle peut être appliquée à différents types de canalisations y compris les tuyaux droits, les tuyaux courbes, les réducteurs et autres accessoires qu'il s'agisse de tuyau, de petit diamètre ou de grand diamètre.
4. Une température de traitement relativement basse n'entraîne ni déformations ni détérioration du matériau et l'opération peut s'effectuer rapidement.

Avantages

* La résistance à la corrosion et la résistance à la corrosion par fatigue de la surface interne du tuyau sont améliorées, contribuant ainsi à améliorer la fiabilité des usines. Ceci entraîne un meilleur rendement des usines, une plus grande économie et évite les pertes qui peuvent être causées par la détérioration des conduites.

Cette méthode est en production. Écrire à: Akio Takahashi, Directeur Général, Service des brevets, HITACHI LTD., 4-1, Hamamatsu-cho 2-chome, Minato-ku, Tokyo 105 (Japon).

JRDC 079

Système de commande de transfert de tuyau à bas bruit/309

Dans une chaîne de fabrication en série, si un tuyau d'acier heurte un autre tuyau sur les rails, ceci produit un fort bruit et peut causer des dégâts mécaniques aux tuyaux. Un flux magnétique est donc utilisé comme force de freinage sur le tuyau d'acier qui est en mouvement sur les rails, pour exercer un choc au moment de la collision. Ce flux magnétique est produit par des électroaimants disposés sous les rails. On peut contrôler la force de freinage à son gré en changeant le courant. Les électroaimants sont placés sous le sommet des rails de façon qu'ils ne risquent pas d'être abîmés par les tuyaux en mouvement.

Avantages

* Le niveau du bruit est réduit et le système ne nécessite aucun entretien.

See illustration page 60. System is in production. Write: Akio Takahashi, General Manager, Patent Department, HITACHI LTD., 4-1, Hamamatsu-cho 2-chome, Minato-ku, Tokyo 105, Japan.

Le système est en production. (Voir l'illustration page 60.) Écrire à: Akio Takahashi, Directeur Général, Service des brevets, HITACHI LTD., 4-1, Hamamatsu-cho 2-chome, Minato-ku, Tokyo 105 (Japon).

JRDC 081

Chemiluminescence Analyzer/309

This technology relates to a chemiluminescence analyzer designed on the basis of an ultraweak intensity light measuring instrument. The application includes measurement of the degree of oxidative deterioration of oils and oil and fat foodstuffs, deterioration of rubber and high polymer materials, and others. Because of its capability of measuring the degree of oxidative deterioration from its initial stage, it can be effectively used in the study of oxidation inhibitors, study of oxidation mechanisms of a variety of substances, and quality control in production lines. The analyzer will also have the following potential applications:

1) Measurement of deterioration of rubber, plastics, and others and study of oxidation inhibitors,
2) Study of aging in biochemistry and medical fields,
3) Decision of deterioration of oils for industrial use and study of oxidation inhibitors,
4) Quality control in production lines, and
5) Blood analysis.

Product is in production. Write: Misao Yajima, Manager, Department of Patent License, RESEARCH DEVELOPMENT CORPORATION OF JAPAN, 5-2, Nagata-cho 2-chome, Chiyoda-ku, Tokyo 100, Japan.

JRDC 081

Analyseur de chimioluminescence/309

La technique vise à mesurer la chimioluminescence lorsque l'intensité lumineuse est très faible. Parmi les applications citons: la mesure du degré de détérioration par oxydation des huiles ou des produits alimentaires contenant des huiles ou des graisses, l'évaluation de la détérioration des matériaux en caoutchouc ou en polymère de haute masse moléculaire, etc. Étant donné la possibilité de mesurer le degré de détérioration par oxydation à partir de l'origine, l'appareil peut être utilisé avec succès pour étudier les anti-oxydants, étudier les mécanismes d'oxydation de diverses substances et effectuer le contrôle de la qualité sur les lignes de fabrication. L'analyseur aura les applications potentielles suivantes:

1) Mesure de la détérioration du caoutchouc, des plastiques, etc. et étude des anti-oxydants.
2) Étude du vieillissement en biochimie et en médecine.
3) Évaluation de la détérioration des huiles à usage industriel et étude de leurs anti-oxydants.
4) Contrôle de qualité sur les lignes de production.
5) Analyse du sang.

L'appareil est au stade de la production. Écrire à: Misao Yajima, Directeur, département des licences de brevets, RESEARCH DEVELOPMENT CORPORATION OF JAPAN, 5-2, Nagata-cho 2-chome, Chiyoda-ku, Tokyo 100 (Japon).

Manufacturing Opportunity Abroad

Rathdown Industries Ltd./309

Rathdown Industries is a member of the Unitech Group, which has wide ranging electronic interests in the U.K. Rathdown was established in 1959 primarily to produce high quality piece parts, such as springs and light metal pressings and has subsequently diversified into a number of product areas, many associated with the telecommunications sector. Rathdown would be interested in using its expertise and accumulated knowledge of the British communications industry in cooperation with Canadian companies' new technology, to tackle the British telecommunications market as a supplier of technically advanced telecommunications systems. Contact Mr. Derek Hughes, Rathdown Industries Ltd. Goodwood Works, 17 London Road, Ascot, Berks, England Telex: 849163, telephone: Ascot 23400 and send a copy of your initial correspondence to the Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Possibilité de fabrication à l'étranger

Rathdown Industries Ltd./309

La société Rathdown Industries est membre du groupe Unitech dont les activités dans le domaine de l'électronique sont nombreuses au Royaume-Uni. Rathdown a été fondée en 1959, afin de produire principalement des pièces détachées de haute qualité, comme par exemple des ressorts et des pièces embouties en métaux légers, puis a diversifié ses activités dans de nombreux domaines de production, dont plusieurs dans le secteur des télécommunications. Rathdown est intéressée à faire bénéficier les compagnies canadiennes de sa connaissance du marché britannique des télécommunications afin de pénétrer ce marché en tant que fournisseur de systèmes de télécommunications à technologie de pointe. Écrire à: M. Derek Hughes, Rathdown Industries Ltd., Goodwood Works, 17 London Road, Ascot, Berkshire (Angleterre) Télex: 849163; numéro de téléphone: Ascot 23400 et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Haut-commissariat du Canada, 1 Grosvenor Square, Londres W1X 0AB (Angleterre).

Bibliography

Reading material listed hereunder may be reviewed in public libraries or obtained from the original publisher as indicated.

When noted, copies of material are available from the Interlibrary Loan and Photocopying Service of the Canadian Institute for Scientific and Technical Information (CISTI), National Research Council of Canada, Building M-55, Montreal Road, Ottawa, Ontario K1A 0S2. Rates for reprints from CISTI are $2.20 per request for up to 10 pages and 22 cents for each additional page. Remittances in the form of cheques or money orders should be made payable to the Receiver General for Canada, credit N.R.C., giving all required bibliographic information; i.e. title, author, date of issue of magazine, and number of the pages.

Bibliographie

Les documents dont la liste est donnée ci-après peuvent être consultés dans les bibliothèques publiques ou obtenus des maisons d'édition, selon l'indication donnée.

Dans les cas indiqués, des copies peuvent aussi être obtenues du Service du prêts interbibliothèques et de reprographie de l'Institut canadien de l'information scientifique et technique (ICIST), Conseil national de recherches du Canada, Édifice M-55, chemin de Montréal, Ottawa (Ontario) K1A 0S2. Le tarif des copies est de $2.20 pour chaque document de 10 pages ou moins et de 22 cents pour chaque page supplémentaire. Prière d'établir ses chèques ou ses mandats-poste à l'ordre du Receveur général pour le Canada, au crédit du Conseil national de recherches. Ne pas oublier de donner tous les renseignements bibliographiques requis: titre, auteur, date de publication de la revue et nombre de pages.

New Product Winners and Losers/309

Price: CB Associate Member — Cdn $12.00, Non-Associate Member — Cdn $36.00, pp. 34, published 1980. Report No. 773 by David S. Hopkins. A study by the Conference Board aimed at finding causes and failures in new product development. Available from: The Conference Board in Canada, Suite 100, 25 McArthur Road, Ottawa, Ontario K1L 6R3. A 6 page résumé published in the May 1981 issue of Research Management pp. 12-17, Vol. XXIV/No. 3 — May 1981 is also available from CISTI for $2.20. The failure rate for new product ventures is believed to be as high as 90 per cent. But there are more new product success stories than are generally acknowledged. According to the report more than half the companies surveyed scored successes with at least two-thirds of the major new products that they marketed over the last five years. Only 9 per cent of the industrial new products, and 13 per cent of the consumer product introductions, were such down-and-out failures that they had to be removed from the market by their manufacturers. And some companies were actually able to report a success rate of 100 per cent. Most companies need all the product opportunities they can get these days. Properly identifying specific marketing requirements represents the greatest priority in new product success. Consumer manufacturers lean more towards technological innovation and development as an area where improvement would provide the most significant sales. Good marketing research and new technology is probably the best formula for successful new products, with the greatest potential payoff coming from innovation at the very earliest stage of the development process, i.e., to produce the new product that is both technically superior and precisely matched to customer need.

Étude sur les produits nouveaux/309

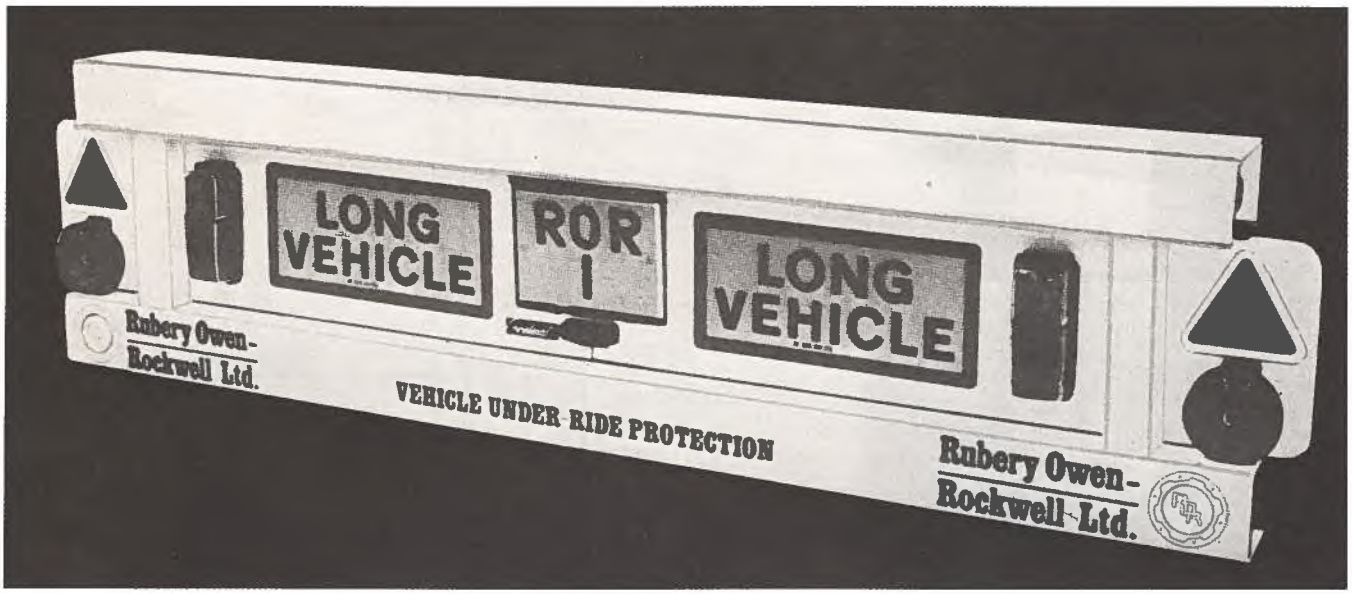
L'étude intitulée "New Product Winners and Losers" compte 34 pages et a été publiée en 1980. Rapport n° 773 de David S. Hopkins. Prix: membre adjoint CB, $12 Cdn, autres, $36.00 Cdn. Cette étude du Conference Board vise à déterminer la méthodologie de la mise au point de nouveaux produits et les raisons des échecs. Commander chez: Conference Board du Canada, Suite 100, 25, chemin McArthur, Ottawa (Ontario) K1L 6R3. On peut également se procurer au CISTI pour la somme de $2,20 le numéro de mai 1981 de Research Management qui renferme un résumé en 6 pages de cette étude (pp. 12 à 17, vol. XXIV/n° 3-mai 1981). On pense que le taux de faillite parmi les entreprises de produits nouveaux atteint jusqu'à 90%. Il y a toutefois plus de réussites dans ce domaine qu'on ne le croit en général. D'après le rapport, plus de la moitié des entreprises étudiées signalent des réussites pour les deux tiers des importants produits nouveaux qu'elles ont mis sur le marché au cours des cinq dernières années. Seulement 9% des produits nouveaux industriels et 13% de ceux destinés à la consommation ont été de tels échecs que leurs fabricants ont dû les retirer du marché et certaines entreprises ont en fait signalé un taux de réussite de 100%. De nos jours la plupart des entreprises pourraient profiter de toutes les occasions qui leur sont offertes de lancer des produits nouveaux. Le fait de bien reconnaître les besoins particuliers en matière de commercialisation constitue l'élément prioritaire de la réussite dans le domaine des produits nouveaux. Les fabricants de biens de consommation optent davantage pour les perfectionnements et les innovations techniques, un domaine où les améliorations assurent des ventes des plus importantes. Une bonne recherche en commercialisation associée à des techniques nouvelles représentent probablement la meilleure recette pour l'obtention de produits nouveaux qui connaîtront du succès, les plus importants retours éventuels résultant d'innovations appliquées aux tout premiers stades du processus de mise au point; ce qui revient à dire qu'il faut produire des produits nouveaux supérieurs sur le plan technique et qui conviennent parfaitement aux besoins des consommateurs.

Intellectual Property Management/309

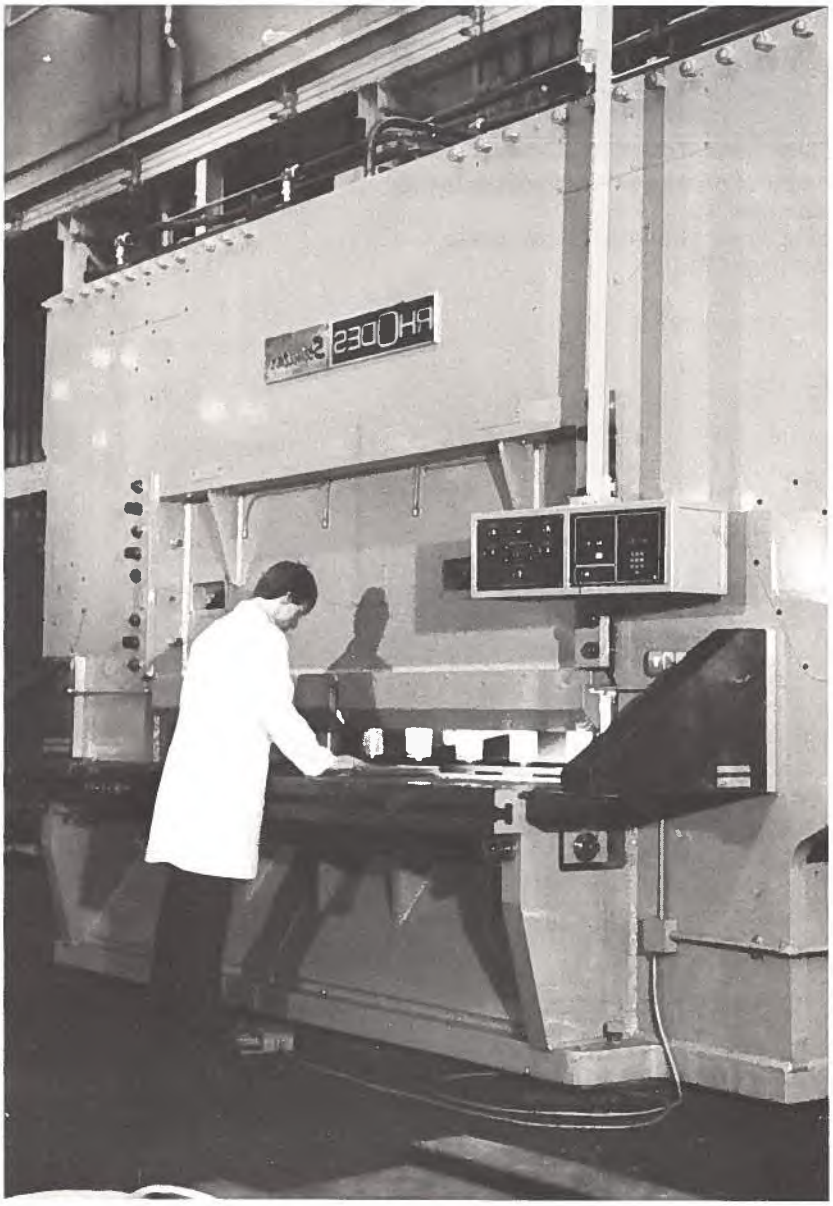
Price: US $67.50, a looseleaf volume with periodic revisions by Philip Sperber. Cost of 1980 revision was U.S. $45.00. Contents include — the secrets of conceiving, perceiving, and selecting profitable innovations for commercial success — New concepts in acquisitions, mergers, and joint ventures — Obtaining and relying on unpublished rights to protect profitable innovation — Obtaining optimum statutory rights for profitable innovation — Assuring the commercial success of a profitable innovation — Trademark protection for the innovation — Licensing: strategy and tactics for the experienced negotiator — Antitrust considerations for trouble-free licensing and marketing — Litigation: improving the odds — Handling innovation for tax benefits. Available from: Clark Boardman Company, Ltd., 435 Hudson Street, New York, N.Y. 10014.

"Intellectual Property Management"/309

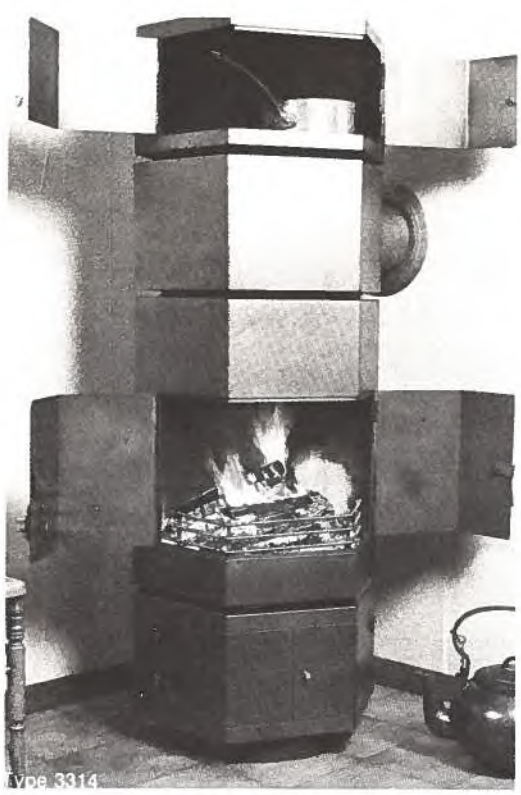
Cet ouvrage, vendu $67,50 US, est de Philip Sperber. Publié sur feuilles volantes, il est mis à jour périodiquement; le coût des mises à jour a été de $45 US en 1980. Voici un aperçu du contenu de l'ouvrage: secrets de la conception, du choix et de la mise à profit d'innovations commercialement fructueuses; notions nouvelles en matière d'acquisitions, de fusions et d'entreprises en participation; obtention et exploitation de droits inédits pour la protection des innovations profitables; obtention de droits législatifs optimaux pour les innovations profitables; comment garantir le succès commercial des innovations profitables; protection de la marque des innovations; les licences: stratégie et tactiques à l'intention du négociateur d'expérience; comprendre les lois antitrusts pour garantir la commercialisation et la cession de licences sans problème; comment mettre les chances de son côté dans les cas litigieux; et comment tirer des avantages fiscaux des innovations. Pour toute commande, écrire à: Clark Boardman Company, Ltd., 435 Hudson Street, New York, N.Y. 10014.



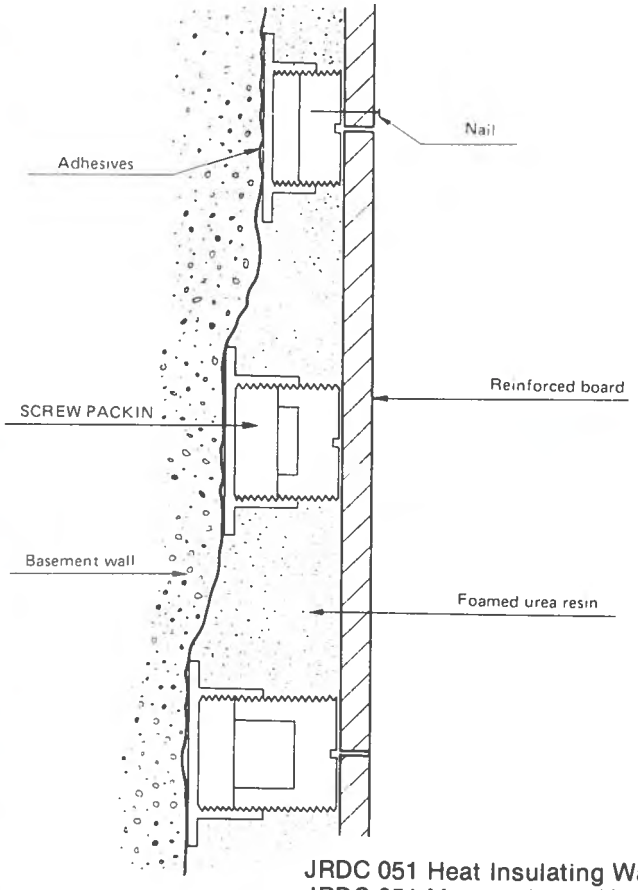
Under-Ride Device (See page 11)
Dispositif de sécurité (Voir page 11)



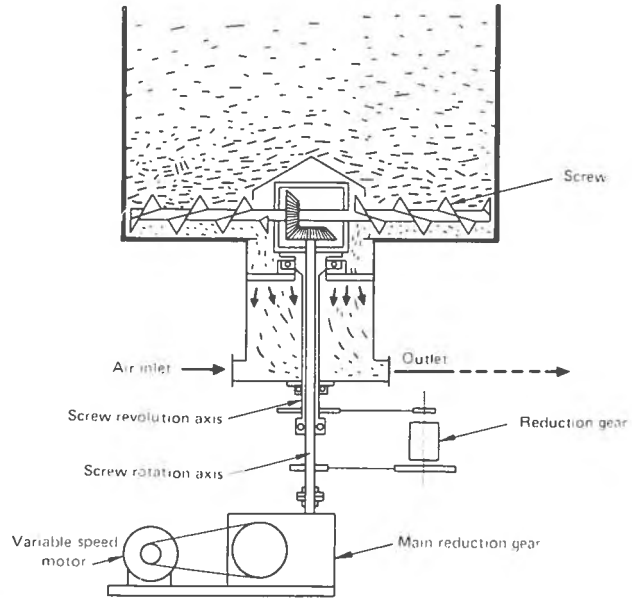
Press Brakes (See page 14)
Presses-plieuses (Voir page 14)



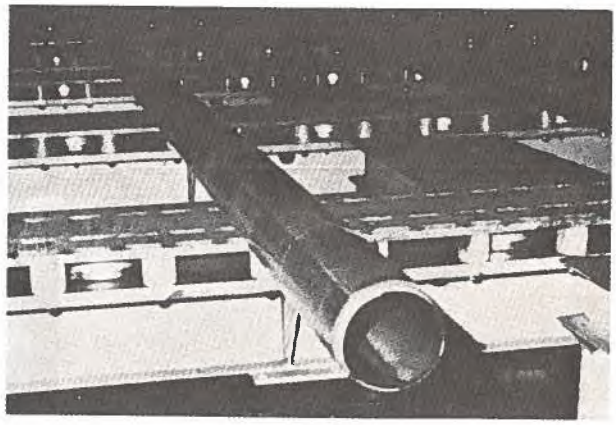
Combination Stove/Fireplace/Barbecue
(See page 12)
Poêle, foyer et barbecue combinés
(Voir page 12)



JRDC 051 Heat Insulating Wall (See page 50)
JRDC 051 Murs isolants (Voir page 50)



JRDC 071 Silo with a Device for Taking Out Contents Continuously and Arbitrarily (See page 51)
JRDC 071 Silo avec dispositif permettant d'enlever le contenu de façon continue et arbitraire (Voir page 51)



JRDC 079 Low-Noise Pipe Transfer Control System (See page 55)
JRDC 079 Système de commande de transfert de tuyau à bas bruit (Voir page 55)

IF UNDELIVERED RETURN TO:
Licensing Opportunities Section (34/3)
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Ottawa, Canada K1A 0H5

EN CAS DE NON-LIVRAISON RENVOYER A:
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