new products bulletin

bulletin de produits nouveaux

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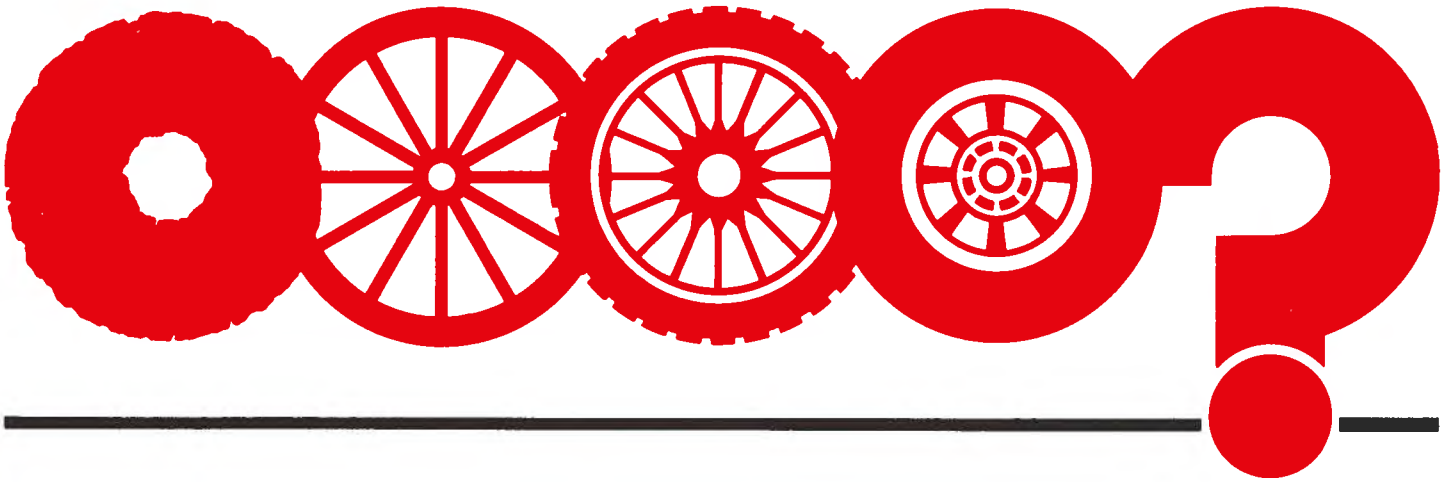


new products bulletin

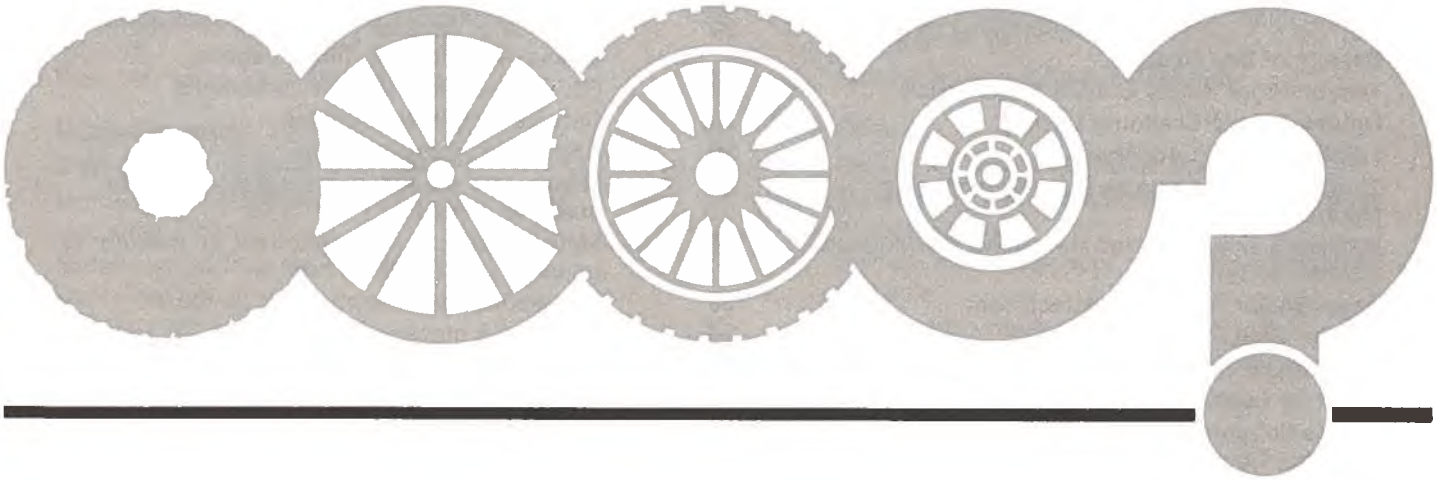
bulletin de produits nouveaux

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

Mobile Vacuum Cleaners/320

Swedish manufacturer offers the manufacturing and worldwide marketing rights to a Canadian company for its mobile vacuum cleaners for the dustfree collection and recovery of waste material. The cleaners are claimed to be dependable; emit low noise level (71 db in cab); are adaptable (can be used to extract particles around and under furnaces in aluminum industry, to clean waste collected around conveyor belts or bucket elevators, can be attached to building vacuum pipe system, and are useful where front and rear loaders or manual cleaning is uneconomical); easily accessible with safe driving position; attached 125 mm hose permits manual spot cleaning from truck; and connection to permanent extraction system on each floor aids in disposal. The material container is provided with level monitor which holds 1.4 m^3. Cyclone for separation of coarse material, main filter with filter area of 71 m^2 and control with differential pressure gauge protect the vacuum pump and ensure that the discharge air is dustfree. (See illustration page 39.) Write: Mr. Bengt Andersson, Inno System AB, Box 210, S-311 01 Falkenberg, Sweden and send a copy of your initial correspondence to Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm 16, Sweden.

Process Control Instrumentation/320

British developer, designer and manufacturer of high technology instrumentation offers a Canadian company currently manufacturing and marketing electronic equipment, the licensing rights to its instruments for water associated industries. The instruments, virtually all solid state circuitry, include: Ultrasonic time of flight, phase difference flowmeter; ultrasonic open channel flow and level meter; ultrasonic doppler type flowmeter/controller; infra-red suspended solids meter; sonic tester for breaks and deposits in boiler tubes; range of turbine flowmeters. The firm will provide all working drawings, schematic block diagrams, component schedules, approved suppliers of specialized components, and designs for any required metalwork and workshop drawings to allow the chosen company to manufacture the Crest equipment with the minimum cost both in time and labour. A royalty of 5% of the end user price of the proposed Crest instruments is required to be paid quarterly to Crest. The firm will also provide a list of approved workshop and testing equipment for use by the chosen company and it proposes to draw up a five year service contract offering the licensee any developments or improvements at no cost. In addition, during the five year service contract, new complementary instruments developed will automatically be offered and a further range of flow-associated instrumentation can be made available to the licensee on an

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

Véhicules-aspirateurs/320

Un fabricant suédois offre les droits de fabrication et de mise en marché mondiaux à une société canadienne pour des véhicules-aspirateurs qui permettent le ramassage de la poussière et des débris, sans poussière. Ces véhicules-aspirateurs sont fiables, peu bruyants (71 db dans la cabine), ils sont adaptables: ils peuvent être utilisés pour extraire les particules aux alentours et au-dessous des fours dans l'industrie de l'aluminium, ils permettent de ramasser les débris propres autour des convoyeurs à bande et des élévateurs à godets, ils peuvent être attachés à la tuyauterie d'aspiration centrale d'un bâtiment et sont utiles quand il est peu économique d'utiliser des chargeuses frontales ou arrière ou le nettoyage manuel. Les aspirateurs sont facilement accessibles et offrent un poste de conduite sécuritaire. Un tuyau de 125 mm permet le nettoyage manuel isolé à partir du camion et un raccord de branchement pour un système d'extraction permanent sur chaque étape facilite le nettoyage. Le conteneur de débris comporte un contrôleur de niveau pour 1.4 m^3. L'appareil comprend un dispositif tourbillonnaire pour la séparation des gros débris, un filtre principal de 71 m^2 et une commande avec manomètre de pression différentielle pour protéger la pompe et assurer une décharge d'air sans particules de poussière. (Voir l'illustration page 39.) Écrire à: M. Bengt Andersson, Inno System AB, Boîte postale 210, S-311 01 Falkenberg (Suède) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, Boîte postale 16129, S-103 23 Stockholm 16 (Suède).

Instrument de commande de procédés/320

Une société britannique spécialisée dans la mise au point, la conception et la fabrication d'instrumentation de technologie de pointe offre à une société canadienne de fabrication et de mise en marché de matériel électronique les droits de licence de ses appareils destinés aux industries dont les activités impliquent l'utilisation de l'eau. On compte parmi ces appareils, qui sont presque tous à semiconducteurs, un débitmètre ultrasonore à temps de vol et à déphasage, un indicateur ultrasonore de niveau et du débit d'un canal découvert, un débitmètre/contrôleur ultrasonore à effet Doppler, un capteur infrarouge de solides en suspension, un vérificateur sonique pour la détection de dépôts ou de fissures dans les tuyaux de chaudières et un indicateur de gamme pour fluxmètres de turbines. Crest fournira toutes les épures, tous les schémas fonctionnels, toutes les nomenclatures de pièces, tous les noms des fournisseurs approuvés de composants spécialisés et les plans nécessaires pour tout travail de métallurgie, de même que les schémas techniques pour permettre à la société choisie de fabriquer les appareils Crest en minimisant les frais découlant de la durée de fabrication et de la main-d'oeuvre. Une redevance de 5% du prix de vente au détail des appareils proposés devra être versée trimestriellement à la société Crest. Crest fournira aussi à la société choisie une liste des ateliers approuvés et du matériel d'essai approuvé

agency basis. Write: Mr. Brian J. Gloyne, Crest Electronics, 39/41 Hoghton Street, Southport, Merseyside PR9 0NS, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

et elle propose de signer un contrat de services pouvant s'étendre sur jusqu'à cinq ans et offrant au détenteur de la licence tout nouveau développement ou amélioration sans frais supplémentaires. De plus, pour la durée du contrat de services de cinq ans, les accessoires nouvellement mis au point seront automatiquement offerts au détenteur de la licence et celui-ci pourra devenir agent exclusif d'une gamme plus étendue d'appareils ayant trait au débit hydraulique. Écrire à: M. Brian J. Gloyne, Crest Electronics, 39/41 Hoghton Street, Southport, Merseyside PR9 0NS (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).

Fibre/Particle Reinforced Thermoplastic Moulding Compounds/320

A major European manufacturer offers a Canadian company the license and technology for the manufacture of fibre and particle reinforced engineering thermoplastic molding materials for end use in automotive, appliance and electronics industries. The process and products are partially covered by patents and trademark. The technology is based upon a number of thermoplastic feedstocks available in Canada and is asbestos based. Interested parties are requested to make enquiries concerning this production through Mr. David C. Dix, Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Composés pour moulage de thermoplastiques renforcés de fibres et de particules/320

Un fabricant européen important offre à une compagnie canadienne les droits et la technologie nécessaires à la fabrication sous licence de matériaux pour moulage de thermoplastiques d'ingénierie renforcés de fibres et de particules, destinés à l'utilisation dans les industries de l'automobile, des appareils ménagers et de l'électronique. Le procédé et les produits font l'objet de brevets et de marques déposées. La technologie fait intervenir de nombreuses matières premières thermoplastiques disponibles au Canada et est basée d'amiante. On demande que les compagnies intéressées à la production se renseignent auprès de M. David C. Dix, Division commerciale, Haut-Commissariat du Canada, 1 Grosvenor Square, Londres, W1X 0AB (Angleterre).

Building Material/320

Spanish company offers the Canadian manufacturing and marketing license rights to its building material, "ISO Composiet", which consists of beads having a polystyrene kernel with a cement shell. The beads mix perfectly with cement and other building materials. Using a special treatment, the beads can be made into building blocks or elements of other shapes. The building blocks or elements offer the following qualities: economical, first rate insulation, fireproof, unshrinkable, fast and easy to process. The blocks which have been used to construct housing in the Netherlands is in accordance with building regulations in the countries of the European Common Market. Testing and scientific reports are available. Write: Interconsult s.l., c/Conde de Altea 58, Altea (Alicante), Spain, and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Apartado 117, 35, Nunez de Balboa, Madrid, Spain.

Matériau de construction/320

Une entreprise espagnole offre les droits de licence canadiens touchant la fabrication et la commercialisation de son matériau de construction "ISO Composiet". Il s'agit de grains à noyau de polystyrène enrobé de béton, qui ont la propriété de se mélanger parfaitement au béton et autres matériaux de construction. Par un procédé spécial, il est possible de modeler les grains en blocs ou autres éléments de formes diverses, offrant de nombreux avantages: économie, excellente isolation, incombustibilité, aucun retrait, fabrication simple et rapide. Utilisés dans la construction domiciliaire aux Pays-Bas, les blocs sont conformes à la réglementation régissant la construction dans les pays du Marché commun. Les rapports d'essais et autres rapports techniques sont disponibles. Écrire à: Interconsult s.l., c/Conde de Altea 58, Altea (Alicante), 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).

Plastic Pallets/320

Japanese firm offers a Canadian company an exclusive license to manufacture and market in North America plastic pallets made by the blow moulding process. The significant advantages of these pallets are their lightness in weight, corrosion resistance, easy cleaning and durability. The cost of production is less because injection moulding machines are relatively more expensive than blow moulding

Palettes en matière plastique/320

Une société japonaise offre aux sociétés canadiennes les droits exclusifs pour l'Amérique du Nord de fabrication et de commercialisation sous licence de palettes en matière plastique réalisées par soufflage. Ces palettes possèdent les avantages importants suivants: légèreté, résistance à la corrosion, facilité de nettoyage et durabilité. Les frais de production sont moindres car le matériel de moulage par

equipment. A firm currently blow moulding large parts and capable of investing approximately $1.3 million dollars in this technology is required. (See illustration page 39.) Write: Mr. Derek Rowlands, Ray House, Sea Road, Westgate, Kent, CT8 8QA, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

injection est relativement plus coûteux que le matériel de moulage par soufflage. Cette offre intéressera une société qui, actuellement, fabrique de grandes pièces par soufflage et peut investir environ $1,3 million dans ce procédé. (Voir l'illustration page 39.) Écrire à: M. Derek Rowlands, Ray House, Sea Road, Westgate, Kent, CT8 8QA (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).

Process for the Production of Humus Fertilizer from Waste Bark/320

North American agent for a Finnish manufacturer and developer Arex Oy of Helsinki offers a Canadian company, having a continuing access to waste bark in quantity, the manufacturing, North American marketing and negotiable export rights to its patented (Canadian Patent 1,118,224), and automated method of producing fertilizer from the waste bark of coniferous trees (pine, spruce, fir). This fertilizer is improved by a process wherein crushed waste bark is treated together with waste molasses under elevated pressure and at a temperature of 75 to 140°C for 10 minutes to 2 hours, said time being dependent on the treatment temperature. The improvement comprises adding yeast to the waste molasses, and maintaining its temperature at 30 to 40°C for 35 to 45 hours, whereby its pH value decreases to 3-4, before it is mixed with the ground waste bark. The resulting "Superhumus" has been used in climates from the sub-arctic to the hot barren deserts of the Middle East with documented positive results in many different applications. Arex Oy will build the first North American plant on a turnkey basis to assure the successful transfer of this technology to the party interested in obtaining exclusive North American licensing rights. The company will provide comprehensive test results from the National Board of Forestry in Finland and the Finnish Forest Research Institute as well as from the Middle East and North Africa. Write: Mr. Peter Rossi Universal Business Connections Ltd., P.O. Box 122, Windsor, Ontario N9A 6K1 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.

Procédé de production d'engrais humique à partir de déchets d'écorce/320

L'agent nord-américain d'un fabricant et distributeur finlandais, Arex Oy de Helsinki, offre à une société canadienne ayant accès à de grandes quantités d'écorce, les droits à sa méthode brevetée (brevet canadien 1 118 224), automatisée, de fabrication d'engrais à partir d'écorce de conifères (pin, épinette, sapin). Ces droits autoriseront la fabrication, la commercialisation en Amérique du Nord et, sous réserve de négociations, l'accès à des marchés extérieurs. L'engrais est formé par un procédé qui consiste à broyer l'écorce et à la traiter par la chaleur (75 à 140°C), sous pression, pendant 10 minutes à 2 heures, ou plus selon la température, avec des résidus de mélasse. Avant de mélanger les résidus de mélasse à l'écorce on leur ajoute une levure et on maintient leur température à 30-40°C pendant 35 à 45 heures pour abaisser leur pH à 3-4. Le "Superhumus" qui en résulte à été utilisé sous tous les climats, de subarctique à désertique chaud au Proche-Orient, avec des résultats prouvés pour de nombreuses applications. Pour assurer un transfert réussi de sa technologie à la société intéressée par les droits, Arex Oy construira une usine clés en main. La compagnie fournira des résultats d'essais détaillés provenant du Conseil national des forêts de Finlande et de l'institut finlandais de recherche forestière ainsi que du Proche-Orient et d'Afrique du Nord. Écrire à: M. Peter Rossi, Universal Business Connections Ltd., C.P. 122, Windsor (Ontario) N9A 6K1 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licence (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Catamaran-Type Vessels/320

French patent holder offers licensed production of 3.6 m and 4.25 m sailing Catamaran (Cat-Racer). Rotational moulded polyethylene hulls and tubular aluminum frames are claimed to result in light strong, inexpensive craft. V-shaped hulls are at an angle of 12 degrees so that the lee hull is vertical in the water at the normal sailing angle. The craft is easily carried on a car top with hulls removed from the frame. The 3.6 meter version weighs 50 kg. and the 4.25 meter craft, 65 kg. Hull moulds can be obtained from Rototron in New York State. Somewhat similar wheeled and ski sail/racing crafts are also available for licensing. (See illustrations page 39.) Write: Mr. Jean-Paul Dudouyt, Les Camélias, Place des Palmiers, F.44500 La Baule Les Pins, France and send a copy of your initial correspondence to Canadian Embassy, 35 Avenue Montaigne, 75008 Paris, France.

Embarcations de type catamaran/320

Un détenteur de brevet français offre les droits de fabrication sous licence de catamarans (Cat-Racer) de 3,6 m et 4,25 m. On prétend qu'en raison de ces coques en polyéthylène rotomoulées et de son châssis en tubes d'aluminium, cette embarcation est légère, robuste et bon marché. Les coques en V font un angle de 12°, de sorte que la coque sous le vent est verticale dans l'eau à l'angle normal de navigation. On peut facilement transporter l'embarcation sur le toit d'une voiture en enlevant les coques du châssis. Le modèle de 3,6 m pèse 50 kg et le modèle de 4,25 m pèse 65 kg. On peut obtenir les moules pour les coques de la firme Rototron dans l'état de New York. On offre également les droits de fabrication sous licence d'embarcations voile/compétition du même type, à roues et à patins. (Voir les illustrations, page 39). Écrire à: M. Jean-Paul Dudouyt, Les Camélias, Place des Palmiers, F.44500 La Baule Les Pins (France) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, 35, avenue Montaigne, 75008 Paris (France).

Boltless, Self-Locking Low Profile Hiltap Pipe Fittings and Relief Valves/320

Canadian inventor offers licensing rights to its tested for cryogenic service, boltless pipe fittings including union, sealing plugs and sealing caps, end of the line bursting disc assembly, union tee combination and in line bursting disc assembly, all suitable for safe and reliable hand operation up to 10 cm. Larger sizes up to 152 cm would be operated with special power wrench, directly or by radio. Some development and test work is still needed for high temperatures and pressures. Note: ½ pipe size cryogenic version has been produced. Patented in Canada (1,026,791); application in U.S., Japan and Germany. Write: Mr. L.L. Krywitsky, P. Eng., 10 Yule Avenue, Toronto, Ontario M6S 1E8 and send a copy of your initial corresondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Soupapes de sûreté et raccords de tuyau Hiltap autobloquants et sans boulons à hauteur réduite/320

Un inventeur canadien offre les droits de fabrication sous licence de ses raccords de tuyauterie sans boulons pour circuits cryogéniques: raccords-unions, bouchons et capuchons étanches, opercules de sécurité en bout de canalisation, raccords en T et union, opercules de sécurité sur canalisation, tous manoeuvrables à la main de manière sûre et fiable jusqu'à 10 cm. Pour les dimensions supérieures, jusqu'à 152 cm, il serait nécessaire d'utiliser des clés mécaniques spéciales à commande directe ou par radio. Pour les températures et les pressions élevées, l'inventeur en est encore au stade de la recherche et des essais. Remarque: une version cryogénique pour tuyaux de ½ a été produite. Breveté au Canada (1 026 791); demandes de brevet aux États-Unis, au Japon et en Allemagne. Écrire à: M. L.L. Krywitsky, P. Eng., 10 Yule Avenue, Toronto (Ontario) M6S 1E8 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.

Tension-Compression and Compression Bolts/320

Austrian inventor offers the Canadian manufacturing and marketing rights to two types of award winning "Huli" bolts which permit a cheap efficient installation of window and door frames and which eliminate the need to install blind casings. This is achieved by fitting a tiltable fastener on opposite sides of the window openings. The fastener consists of a part which is attached to the wall and a part which is attached to the frame. Both parts fit into each other and are rotated in relation to each other (tightened, slackened) until the window frame is correctly adjusted. The fasteners are then locked in position. The costs of installation time is reduced. Using these Huli bolts and brackets, it is simple to align and to fit windows into position and to precisely adjust and tighten them into place using a wrench. The bolts can be used on wooden, aluminum, light metal or plastic frames. Also, windows can be replaced without breaking into the wall; no additional sealing material or trim is required; window manufacturers do not have to redesign their products to permit use of the Huli bolt; and windows are not dirtied because they can be fitted after masonry work is complete. (See illustration page 40.) Write: AGP – Arbeitsgemeinschaft für Patentförderung, Leopoldstrasse 4, A-1020 Vienna, Austria and send a copy of your initial correspondence to Canadian Embassy, Luegerring 10, A-1010 Vienna, Austria.

Boulons travaillant en tension et compression ou en compression/320

Un inventeur autrichien offre les droits de fabrication et de mise en marché pour deux types de boulons "Huli" pour lesquels il a remporté un prix. Ces boulons permettent l'installation efficace et peu coûteuse des encadrements de portes et de fenêtres et éliminent la pose de faux encadrement. On pose une fixation inclinable sur les côtés de l'encadrement de fenêtre. La fixation comprend une partie fixée au mur et une partie fixée à l'encadrement. Ces deux parties s'adaptent l'une dans l'autre et tournent pour se serrer ou se desserrer jusqu'à ce que l'encadrement soit bien ajusté. Les fixations sont ensuite bloquées en place. Le coût d'installation est donc réduit. Les boulons et fixations Huli facilitent la pose des fenêtres et permettent un centrage précis, il suffit ensuite de les serrer avec une clé. Ces boulons peuvent être utilisés sur les encadrements de bois, d'aluminium, de métal léger ou de plastique. Les fenêtres peuvent être remplacées sans qu'il faille démolir une partie du mur, aucun produit d'étanchéité n'est nécessaire, les fabricants de fenêtres n'ont pas à redessiner leurs produits pour utiliser le boulon Huli, les fenêtres ne sont pas salies car elles sont posées après le travail de maçonnerie. (Voir l'illustration page 40.) Écrire à: AGP – Arbeitsgemeinschaft für Patentförderung, Leopoldstrasse 4, A-1020 Vienne (Autriche) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, Luegerring 10, A-1010 Vienne (Autriche).

New Design Method and Kit to Reduce Project Cost/320

Canadian inventor of copyrighted, registered and tested design for a method (kit) to reduce project costs and to permit an effective use of creative workers in ensuring optimization of a solution to a problem in respect to safety, economy, reliability, ecology, etc., offers the manufacturing and marketing rights to a Canadian company. The kit teaches how to create technical sketches quickly, efficiently and

Nouvelle méthode et trousse de dessin visant à réduire le coût des projets/320

L'inventeur canadien d'une méthode (et trousse) brevetée, enregistrée et éprouvée, qui permet de réduire le coût de projets et d'utiliser efficacement les employés créateurs en vue de résoudre de la meilleure façon possible des problèmes ayant trait à la sécurité, l'économie, la fiabilité, l'écologie, etc., offre les droits de fabrication et d'exploitation sous licence à une société canadienne. La trousse fournit

effectively and drastically reduces the time to make a good drawing. Computer aided design would complement the new method. The method encourages creative input from the design team while enhancing roles of the project originator and his supervisor. The training plan may include use of a kit, text book, video tapes and seminars by the inventor or his assistants. Users include engineers, architects, designers, logo designers, draftsmen and sign designers, and anyone who needs to sketch to produce new work. Write: Mr. L.L. Krywitsky, P. Eng. 10 Yule Avenue, Toronto, Ontario M6S 1E8 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.

toutes les explications sur la façon de réaliser rapidement et efficacement des dessins techniques tout en réduisant considérablement le temps nécessaire à l'obtention d'un bon produit. La conception assistée par ordinateur pourrait compléter cette nouvelle méthode. Cette méthode favorise l'apport créateur de l'équipe de concepteurs tout en mettant en valeur le rôle de l'auteur du projet et de son superviseur. Le programme de formation peut comporter l'utilisation d'une trousse, d'un manuel, de bandes vidéo ainsi que de séminaires données par l'inventeur ou ses adjoints. Le programme s'adresse aux ingénieurs, architectes, concepteurs, dessinateurs de logos, dessinateurs industriels et dessinateurs de panneaux publicitaires, ainsi qu'à tous ceux dont le travail comporte la production de dessins. Écrire à: M. L.L. Krywitsky, P. Eng., 10 Yule Avenue, Toronto (Ontario) M6S 1E8 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licence (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Plasma Temperature Measuring Instrument/320

Russian developed instrument is offered for manufacture under license in Canada. It is claimed to be capable of measuring plasma temperatures with an accuracy of 1.5%. Spectrometric measurements can be obtained at any point of a MHD generator duct. The instrument is designed for continuous operation providing up to 50 measurements per second suitable for direct computer data analysis. Applications include measuring plasma temperatures and conductivity of gases from rocket engines, MHD generators, etc. The instrument is patented in the U.S.A., France, India and other countries. Export rights are negotiable. Write: Mrs. Irina D. Savchenko, Dipl. Engineer, Head of Exhibitions, Publicity and Advertising Department, V/O Licensintorg, Kakhovka St. 31, Moscow, U.S.S.R. 113461 and send a copy of your initial correspondence to Mr. George Hazen, Minister-Counsellor (Commercial), Canadian Embassy, 23 Starokonyushenny Pereulok, Moscow, U.S.S.R.

Capteur de température des plasmas/320

On offre les droits canadiens de fabrication sous licence d'un appareil mis au point en Union Soviétique. On affirme que cet appareil peut mesurer la température de plasmas avec une précision de 1.5%. Des mesures spectrométriques peuvent être effectuées sur n'importe quel point d'un conduit de générateur magnétodynamique. L'appareil est conçu pour fonctionner en continu et peut prendre jusqu'à 50 mesures par seconde qui peuvent être analysées directement par ordinateur. On compte parmi les applications de cet appareil la mesure de la température des plasmas et de la conductivité des gaz d'émission de moteurs-fusées, les générateurs magnétodynamiques, etc. Cet appareil est protégé par brevet aux États-Unis, en France, en Inde et dans d'autres pays. Les droits d'exportation peuvent faire l'objet d'une entente. Écrire à: Mme Irina D. Savchenko, Ingénieur diplômée, Chef des expositions, Département de la publicité et de la promotion, V/O Licensintorg, 31, rue Kakhovka, Moscou (U.R.S.S.) 113461 et faire parvenir une copie de votre correspondance initiale à M. George Hazen, Ministre-conseiller (secteur commercial), Ambassade du Canada, 23 Starokonyushenny Pereulok, Moscou (U.R.S.S.).

Self-Locking Set Screws/320

Canadian inventor offers licensing rights to SER® fasteners — tested all-metal, self-tightening, self-locking set screws suitable for direct or remote handling (by means of a patented tool). The design permits manufacture of presently not made ultra-short, regular, miniature and subminiature set screws. Existing commercial semi-finished set screws may be purchased to be modified on automatic set up, utilizing laser machines, pneumatically operated dies and fixtures all controlled by a micro computer. Patents issued in Canada: 893,513 and 1,045,963. Write: Mr. L.L. Krywitsky, P. Eng., 10 Yule Avenue, Toronto, Ontario M6S 1E8 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.

Vis d'arrêt autobloquantes/320

Un inventeur canadien offre les droits de fabrication sous licence de ses fixations SER(MD) — en l'occurrence des vis d'arrêt autobloquantes et autoserrantes, entièrement en métal, pouvant être manipulées directement ou à distance (au moyen d'un outil breveté). Le procédé permet la fabrication de vis d'arrêt qui n'existent pas actuellement: ultra-courtes, normales, miniatures et sous-miniatures. On peut se procurer des vis d'arrêt semi-finies du commerce et les modifier au moyen d'un dispositif automatique utilisant des machines à laser ainsi que des filières et des accessoires pneumatiques, tous commandés par un micro-ordinateur. Brevets délivrés au Canada: 893 513 et 1 045 963. Écrire à: M. L.L. Krywitsky, P. Eng., 10 Yule Avenue, Toronto (Ontario) M6S 1E8 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.

Boot Drying Rack/320

American inventor offers a Canadian company the exclusive manufacturing and marketing rights under his U.S. Patent Number 4,289,243 for a device designed to be mounted on any vertical or horizontal surface such as the interior of a closet or locker on which wet boots are inverted for more effective drying of the entire boot. The device permits free circulation of air throughout the interior and around the boot. This support device includes a base having pivotally attached thereto one or more support arms movable into an outwardly, angularly inclined extended position. Each of the arms are specifically dimensioned and configured to be mounted on the interior of a boot and supported for rapid drying. (See illustration page 40.) Write: Mr. Nicholas A. Arbuzoff, 198 Springbank Drive, Lot 67, London, Ontario N6J 1G1 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.

Salt and Gravel Spreading Machine/320

Danish inventor offers a Canadian company the manufacturing and marketing in Canada and export rights to the U.S.A. and Eastern Europe, for his patented trailer designed to be pulled after a truck. The trailer spreads salt or gravel uniformly irrespective of humidity or type of gravel, the flow is controlled by a continuously variable system allowing minimum consumption of material for a given job and as there are no rotating parts in the hopper, wear is minimized. Any material remaining in the hopper can be discharged by opening a chute. (See illustration page 40.) Write: Mr. Jannik Kofoed, The Danish Invention Center, Gregersensvej, DK-2630 Taastrup, Denmark and send a copy of your initial correspondence to Canadian Embassy, Kr. Bernikowsgade 1, 1105 Copenhagen K, Denmark.

Automatic Lens Focusing Method and Apparatus/320

American inventor offers non-exclusive licensing rights to his patents, U.S. 3,732,001 and Canadian 872,358, for a technique of testing quality of focus of a lens using the phenomena associated with out-of-focus images to signal out-of-focus (null signal is in-focus). It works directly behind the lens at the focal plane, or in a projection situation, remotely from the screen. A special configuration is to simulate large base-line for triangulation purposes with small lens elements. Motion detection is a special case covered wherein distance control follows normal depth-of-field concepts for lenses. In passive operation, it requires moving the device or liquid crystal options to simulate moving blockage in the nodal plane of the lens. Used in automatic focusing cameras and instruments, intrusion devices and rangefinders. Its chief advantages are: out-of-focus phenomena; passive; accuracy same as the depth-of-field of lens; only one moving part (none simulated by liquid crystal). Write: Mr. William J. Harrison, P.O. Box 6366, San Rafael, CA 94903 and send a copy of your initial correspondence to Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, CA 94111-3468, U.S.A.

Râtelier de séchage des bottes/320

Un inventeur américain offre à une société canadienne les droits exclusifs de fabrication et de mise en marché sous le brevet américain numéro 4,289,243 pour un dispositif à monter sur une surface verticale ou horizontale tel que l'intérieur d'un placard ou d'une armoire pour accrocher les bottes mouillés à l'envers et assurer un séchage efficace. Le dispositif permet à l'air de circuler tout autour de la botte et à l'intérieur. Ce dispositif comprend une base sur laquelle s'articulent un ou plusieurs bras de support qui s'étendent vers l'extérieur à un angle incliné. Chacun des bras a la dimension et la configuration voulues pour être enfoncé à l'intérieur de la botte et pour permettre le séchage rapide. (Voir l'illustration page 40.) Écrire à: M. Nicholas A. Arbuzoff, 198 Springbank Drive, Lot 67, London (Ontario) N6J 1G1 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.

Machine pour répandre le sel et le gravier/320

Un inventeur danois offre à une société canadienne les droits de fabrication et de mise en marché au Canada ainsi que les droits d'exportation aux États-Unis et en Europe de l'Est pour une remorque brevetée tirée derrière un camion. La remorque sert à répandre du sel ou du gravier uniformément quelle que soit la teneur en humidité et le type de gravier, le débit est contrôlé par un dispositif continuellement variable qui permet de répandre un minimum de matériau pour un travail donné et, étant donné qu'il n'y a aucune pièce rotative dans la trémie, l'usure est minimisée. Tout le matériau restant dans la trémie peut être déchargé par l'ouverture d'une goulotte. (Voir l'illustration page 40.) Écrire à: M. Jannik Kofoed, Centre des inventions du Danemark, Gregersensvej, DK-2630 Taastrup (Danemark) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, Kr. Bernikowsgade 1, 1105 Copenhagen K (Danemark).

Méthode et appareil pour mise au point automatique d'un objectif/320

Un inventeur américain offre les droits de licence non-exclusifs pour ses brevets U.S. 3,732,001 et canadien 872,358 relatifs à une technique d'essai de la qualité de la mise au point d'un objectif; cette technique exploite les phénomènes qui accompagnent les images non au point pour signaler l'absence de point (un signal nul signifie que le point est obtenu). Le dispositif fonctionne directement derrière l'objectif, au plan focal ou, s'il s'agit d'une projection, à une certaine distance de l'écran. Une configuration particulière peut simuler une longue ligne de base à des fins de triangulation avec de petites lentilles. La détection du mouvement est un cas spécial qui est également couvert: le réglage de la distance respecte les principes ordinaires de la profondeur de champ des objectifs. En fonctionnement passif, le dispositif ou les options à cristaux liquides doivent être déplacés pour simuler le déplacement d'un obstacle dans le plan nodal de l'objectif. Le dispositif est utilisable dans les appareils, caméras et instruments à mise au point automatique, dans les dispositifs à intrusion et dans les télémètres. Ses principaux avantages sont: (Voir la page 17 pour la continuation.)

Canadian Patents Available for Licensing or Sale in Canada Issued July 1982

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

Rock or Stump Remover Assembly/320

A rock or stump remover includes a frame with a pair of hooks cut from heavy-duty plate depending therefrom in spaced and parallel relationship and pivotally attached to the frame and detachably held in the working position by shear bolts which shear and allow the hooks to pivot individually relative to the frame. The frame is designed to be detachably connected to the three-point hitch at the rear of the tractor. In contrast to existing devices, the shear bolts yield individually at a predetermined load thereby preventing damage not only to the assembly but also to the three-point hitch connection. **PATENT 1,126 949**. Write: Richard F. Volke, Box 114, Big Beaver, Saskatchewan S0H 0G0 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.

Bumper Mounted Soil Sampling Device/320

The soil sampling assembly is designed to be detachably secured within the central recess provided in the moulded rear bumper of small pick-up type trucks and the like. A bracket supports a pair of spaced and parallel members and a cylinder support extends upwardly therefrom and is adjustable lengthwise relative to said members. The cylinder is pivotally supported in a trunion at the top of the cylinder support and the piston rod is pivotally connected to a soil probe tube extending downwardly from the cylinder. The device is easily actuated from a simple hydraulic system either driven by the truck motor or by a separate source of power in the truck and is easily attached and detached from the truck when required. **PATENT 1,126,982**. Write: John G. Doty, Box 202, Carlyle, Saskatchewan S0C 0R0 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.

Spacer for Sealed Flat Glass Units/320

Un espaceur du type tenant écartées les vitres opposées d'une unité de fenêtre scellée et caractérisé par une moulure s'y enclenchant par pression. Cet espaceur comprend un corps de vinyl formant intégralement un cadre d'espacement et un rebord à débordement latéral pour entourer périphériquement les deux vitres opposées et dans lequel s'enclenche par pression une arête prévue à cette fin dans une moulure. Cette dernière est décalée vers le cadre par rapport à l'arête d'enclenchement afin de faire contact sous pression avec la face correspondante du cadre et/ou de la vitre correspondante. **BREVET 1,127,010**. Écrire à: Jean-Claude Lafleur, 3409, rue Maricourt, App. 6, Ste-Foy (Québec) G1W 2M4 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.

Seed Planting Machine and Row Making/320

A seed planting machine and a row making implement therefor adapted to form a row of soil and at the same time to plant seeds on it. In this seed planting machine, the combination comprises a plurality of seed planting devices, a frame to be towed by a tractor, a seed hopper mounted on the frame and connected to the seed planting devices, a tool bar and a shaft longitudinally extending transversely of the tractor and fixedly secured to the frame, and one soil working tool assembly associated to each seed planting device and including: a pair of tool carrying arms pivoted to the shaft on opposite sides of the corresponding seed planting device; a soil working disk on the free end of each arm; a spring to downwardly bias each arm against upward pivoting thereof; and adjustment means to adjust the bias of the spring, the transverse position of each arm relative to the corresponding seed planting device and the relative angular position of each soil working disk. **PATENT 1,127 012**. Write: Alix O'Neil, 5650, rang des Trente, Saint-Jean-Baptiste, Cté Rouville, Québec J0L 2B0 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.

Liste des brevets canadiens disponibles pour octroi de licences ou vente au Canada délivrés en juillet 1982

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

Extracteur de souches ou de roches/320

Dispositif de prélèvement d'échantillons de sol, porté sur pare-chocs/320

Espaceur pour unités scellées en verre plat/320

Semoir à accessoire fouilleur/320

Nonimaging Radiant Energy Direction Device/320

Dispositif pour diriger l'énergie radiante/320

A radiant energy nonimaging light direction device is provided. The device includes an energy transducer and a reflective wall whose contour is particularly determined with respect to the geometrical vector flux of a field associated with the transducer. **PATENT 1,127,030**. Write: 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 General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Filtration/320

Filtration/320

In the extraction of coal using a liquid solvent oil, filtration can be assisted by using a filter aid which is of coal origin. The filter aid is produced by high temperature processing of coal or an ash-rich coal-derived residue under conditions at which the ash component of the coal or residue does not fuse. A preferred starting material is filter cake from a coal extraction process. **PATENT 1,127,103**. Write: Coal Industry (Patents) Limited, Hobart House, Grosvenor Place, London S.W. 1, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Electrolytic Cell and a Method for Manufacturing the Same/320

Accumulateur électrolytique, et méthode de fabrication connexe/320

An electrolytic cell with a tank for the electrolyte is disclosed wherein several plate-like electrodes are fitted in the tank together with members for connecting the electrodes to the source of electric current, the members, connected to at least one pole of the source of electric current, being aluminum or, when welded with an aluminum additive, alternatively copper conductor rails or suspended conductors which have been attached to the titanium shell part on its opposite side in relation to the titanium electrodes or directly to the titanium electrodes either by gas arc welding or by welding aluminum on the titanium shell part of the electrolytic tank or on those parts of the titanium electrodes adapted to be attached to the conductors. **PATENT 1,127,110**. Write: Finnish Chemicals Oy, SF-32740 Äetsä, Finland and send a copy of your initial correspondence to Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Pipe Spiral Bundle for a Heat Exchanger and a Method for Manufacturing the Same/320

Tuyauterie en faisceau spiral pour échangeur de chaleur, et méthode de fabrication connexe/320

A pipe spiral bundle for a heat exchanger is produced by using pre-fabricated pipe spirals of the same shape, each pipe spiral having pipe loops essentially in one plane and at distances inside each other, such spirals being arranged concentrically and directly on top of each other and then tightly attached to each other so as to form a continuous spiral-shaped contact line between adjacent spirals, and a mutual branch pipe being connected to one end of each pipe spiral and a mutual collector pipe being connected to the opposite end of each pipe spiral. The pipe spirals may be heat welded to each other or connected to each other by mechanical binding members, such as metal bands. **PATENT 1,127,144**. Write: Outokumpu Oy, Töölönkatu 4, SF-00100 Helsinki 10, Finland and send a copy of your initial correspondence to Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Shaft Assemblies for Golf Clubs/320

Manches de bâtons de golf/320

A problem in golf club manufacture is the very large number of different shafts required to make sets of clubs with different shaft flex characteristics. The invention teaches how it is possible to greatly reduce the number of different shafts used in a set by defining the shaft flex characteristics in terms of the EI value of the shaft. Recognising that the EI value at a section, that is, at a distance from a selected datum, controls the amount of deflection and hence flex characteristics the invention teaches how it is then possible to use a single master shaft throughout a set and by altering the distance from the datum, and hence altering the EI value, a second and a third set and so on, having flex characteristics different from the first set can be produced from identical master shafts or shaft planks. **PATENT 1,127,196**. Write: Ian C. MacDougall, 19 Knockbreck Avenue, Tain, Ross-shire, Scotland and send a copy of your initial correspondence to Canadian Consulate, Ashley House, 195 West George Street, Glasgow G22HS, Scotland.

Utility Cart/320

Chariot utilitaire/320

A utility cart (e.g., for one or more garbage cans or one or more garbage bags) made up of preformed tubular elements which are adapted to be detachably assembled together. The cart includes four interrelated elements. The first is an upper generally rectangular framework, the upper framework including a forward, U-shaped portion provided by a forward, transversely extending arm and a pair of rearwardly directed, longitudinally extending, transversely spaced-apart arms, and a rearward, U-shaped portion provided by a rearward, transversely extending arm and a pair of forwardly directed, longitudinal-

ly extending, transversely spaced-apart arms, the facing, mutually opposed ends of the rearwardly directed arms and the forwardly directed arms being adjustably telescopically joined together. The second is a lower generally rectangular framework, the framework including a forward portion constituted by a pair of identical L-shaped members, each such member including a vertically extending arm adapted to be rigidly secured to the forward transversely extending arm of the upper framework, and a rearwardly directed longitudinally extending arm, the identical L-shaped members being transversely spaced apart, and a rearward U-shaped portion provided by a rearward, transversely extending arm and a pair of forwardly directed longitudinally extending, transversely spaced-apart arms, the facing mutually opposed ends of the rearwardly directed arms and the forwardly directed arms being adjustably telescopically joined together. The third is a vertical handle portion comprising a pair of L-shaped members, each such member including a vertical leg extending below the lower framework to terminate in a synthetic plastic material capped, e.g., vinyl plastic capped, foot and extending above the upper framework to terminate in a rearwardly directed handle extending at right angles to the vertical leg, each such vertical leg being firmly secured at its intersection with the respective rearward transversely extending arm of the upper framework, the L-shaped members being transversely spaced apart. The fourth is a pair of wheels rotatably mounted on a transversely extending axle removably secured to the rearwardly directed arm of the L-shaped members of the lower rectangular framework. In this way, the cart is adjustable in size to accommodate one or a plurality of garbage cans or one or a plurality of garbage bags, and is provided with legs particularly designed to provide secure static support and control. **PATENT 1,127,200.** Write: Garth Robinson, 258 Vodden Street, Brampton, Ontario L6V 2P8 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.

Electronic Two-Directional Control Apparatus/320

Dispositif de contrôle électronique bidirectionnel/320

An electronic two-directional control apparatus responsive to the capacitance of an external object for generating two electrical outputs simultaneously referable as co-ordinates defining the position of an external object in relation to a control surface, four sensing electrodes of approximately equal capacitance symmetrically arranged into pairs of opposing sensing electrodes within a common plane and electrically insulated from one another whereby sensing electrodes define a control surface and whereby sensing electrode capacitances independently vary in response to the proximity of an external object thereto and are electrically connected to an electrical input in such fashion that only the positive portions of the oscillatory potential are equally applied to each sensing electrode; two pairs of resistors electrically connected to sensing electrodes for continuously receiving discharge currents originating from each pair of opposing sensing electrodes, respectively and whereby each discharge current is a function of corresponding sensing electrode capacitance; a detector circuit electrical connected to both pairs of resistors for simultaneously detecting both continuous discharge currents from each pair of resistors, detecting differences therebetween, and generating two electrical outputs respectively. The electronic two-directional control apparatus may be utilized in combination with a human body act on a universally rotatable mechanical control member for simultaneously generating two electrical outputs referable as co-ordinates defining the position of mechanical control member in relation to control surface. **PATENT 1,127,262.** Write: Dellas Stoyko, 6061 Yonge Street, Apr. 1902, Willowdale, Ontario M2M 3W4; Gerald N. Stan, 1157 Shamir Crescent, Mississauga, Ontario L5C 1L2 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.

Fire Screening Glazing Panels and Method of Manufacturing Same/320

Panneaux verriers de foyer, et méthode de fabrication connexe/320

A method of manufacturing a fire-screening glazing panel comprising at least one layer of intumescent material sandwiched between two structural plies of the panel, includes the steps of forming the layer and securing the plies together. In order to avoid or reduce problems associated with drying the intumescent layer, an assembly is made in which the structural plies sandwich a layer of intumescent material formed from at least one material of which at least the greater part by volume is in granular form. In a second aspect, in order to facilitate degassing of the intumescent layer, such layer contains intumescent material of which at least part is in the form of grains, and the intumescent material is subjected to suction at the edges of the assembly in a degassing step and the assembly is subjected to heat and/or pressure conditions to cause the grains in the layer to become assimilated into an intumescent body which bonds the structural plies together. The invention includes an intermediate product for forming a multi-ply fire-screening glazing panel, comprising a structural ply of glazing material bearing an adherent layer of which at least the greater part by volume consists of grains of intumescent material. **PATENT 1,127,395.** Write: BFG Glassgroup, rue Caumartin, 43, Paris, France and send a copy of your initial correspondence to Canadian Embassy, 35 Avenue Montaigne, 75008 Paris, France.

Method and Apparatus for Forming Ice Sculptures or the Like/320

Méthode et dispositif de façonnage de sculptures de glace/320

An apparatus for forming ice sculptures or the like, comprising a housing, a sleeve member of predetermined shape, having an outer, ice-forming surface fully exposed to the ambient atmosphere, disposed on the housing; and, means for refrigerating the sleeve member, having a portion thereof disposed in the housing, evaporator means disposed in the sleeve mem-

ber and a circulating refrigerating fluid which flows upwardly through the evaporator means, whereby a substantial layer of ice, formed only from moisture available in the ambient atmosphere is formed on the outer surface of the sleeve member in the predetermined shape. In place of a sleeve member, a helix of stacked coils may provide an ice-forming surface. The apparatus may be further provided with timing means for automatically controlling the refrigerating means, means for controlling the temperature and light means disposed atop the sleeve member. The sleeve member may also be coated with a color, providing a background hue for the layer of ice. **PATENT 1,127,408**. Write: Andy W. Zeigler, Pince Acres, Milford, Pennsylvania 18337 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, PA 19102, U.S.A.

Device for Separating a Vapor/Liquid Mixture in a Horizontal Separator/320

Dispositif de répartition d'un mélange de vapeur et de liquide dans un séparateur d'axe horizontal/320

Dispositif de répartition et de séparation préliminaire d'un mélange vapeur-liquide dans un séparateur d'axe horizontal, à partir d'une tubulure 10 sur la génératrice inférieure du séparateur. Il comprend deux déflecteurs symétriques 11, 12 en formes de portions de cylindres, d'axes parallèles et perpendiculaires à celui du séparateur, coupés chacun par deux plans obliques, et complétés par trois cloisons 17, 18. Leurs bords sont munis de gouttières 21 de recueil et d'évacuation de l'eau déposée sur leur surface concave, débouchant dans des espaces séparés de la tubulure. Application aux séparateurs-surchauffeurs de vapeur d'eau humide issue d'une turbine de détente. **BREVET 1,127,562**. Écrire à: Stein Industrie, 19-21, avenue Morane Saulnier, 78140 Velizy-Villacoublay, France et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, 35, avenue Montaigne, 75008 Paris (France).

Coil Carrier with Carrier Elements Extending Parallel to its Axis/320

Dévidoir/320

A coil carrier for thread or yarn comprises parallel carrier elements interconnected at a spacing from each other by coupling members to define a common cylindrical enveloping surface. The supporting elements are circumferentially compressible and the coupling members are substantially inflexible so that, on the application of radial pressure, the carrier diameter is reduced without markedly changing the spacing between the carrier elements. Said spacing is larger than the circumferential dimension of each carrier element. **PATENT 1,127,612**. Write: Jos. Zimmermann, Ros-Strasse 9-13, 5100 Aachen, West Germany and send a copy of your initial correspondence to Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Piping Support and Holding Device/320

Dispositif de supportage ou de fixation de tuyauterie/320

Dispositif permettant le supportage ou la fixation de tuyauteries d'épaisseur faible par rapport à leur diamètre et soumises à des variations de température importantes, et/ou devant être protégées contre les secousses sismiques. Il comporte un collier entourant la tuyauterie et espacé de celle-ci, percé de trous en au moins deux points symétriquement disposés, des taquets soudés sur la tuyauterie au centre de ces trous, des pièces de liaison engagées dans chacun des taquets, et des lames flexibles soudées d'un côté sur les pièces de liaison et d'un autre côté sur des pièces solidaires du collier. **BREVET 1,127,613**. Écrire à: Stein Industrie, 19-21, avenue Morane Saulnier, 78140 Velizy-Villacoublay (France) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, 35, avenue Montaigne, 75008 Paris (France).

Acoustic Micrometer/320

Micromètre acoustique/320

An acoustic micrometer for measuring the exact distance between two electrically interconnected metallic objects is disclosed. The micrometer comprises a micrometer head having an electrical contact at one end adapted to engage one of the metallic objects when taking a measurement, a housing secured to the other end of the micrometer head and adapted to physically engage the other metallic object, a battery located in the housing, electrical contact means connected to one terminal of the battery and mounted at the end of the housing so as to engage the other metallic object when taking a measurement, and a sound generator and speaker assembly adapted for connection of the micrometer head to emit an audible signal when the electrical circuit is completed between the metallic objects. **PATENT 1,127,736**. Write: Henri Perreault, 64, rue Albanel, Radisson, La Grande, Baie James, Québec J0Y 2X0 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.

Toilet Bowl/320

Cuvette de cabinet d'aisances/320

A washroom for the handicaped comprising a novel toilet bowl comprising a first and second seating positions and a base for fixing the bowl to a surface. The washroom may also comprise a number of support bars allowing a person confined to wheel chair to move onto the bowl. A first support bar extends over or near the second end whlle being generally perpen-

dicular to the longitudinal axis of the bowl. One or two side bars may also be provided which extend along one side of the bowl while being generally parallel to the bowl. **PATENT 1,127,803.** Write: Joseph Ghorayeb, 3005 Barclay Street, Montreal, Quebec H3S 1J9 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.

Aerostatic Self-Supporting Roofing/320

Toiture aérostatique/320

Dans la conception de toiture à très grande surface qui exigent de très grandes portées l'on rencontre de multiples problèmes dû aux structures qui doivent être utilisées dans ces cas, soit le poids des structures horizontales qui augmentent en fonction de leur portée, soit de leurs appuis verticaux (colonnes) qui nuisent à la planification des grands espaces que l'on veut utilisés avec un minimum d'inconvénients. La présente invention élimine toute structure verticale portante et permet le recouvrement d'espaces d'édifices publics de très grandes dimensions avec le minimum d'inconvénients de chantier. La toiture ainsi développée a l'avantage d'être amovible puisqu'elle se meut d'elle-même et est auto-portante. **BREVET 1,127,822.** Écrire à: Laurent Glode, 113, rue Thivierge, Ste-Foy, Québec G2G 1E9 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.

Spinning Toy/320

Jouet de type toupie/320

This invention is a toy in which two principal assemblies of parts are made to counter-rotate by a central internal coil spring, previously wound up by hand, whose tension is released when the weight of the toy, when it is placed on a flat surface, disengages a one-way clutch. It is equipped with a means of freeing the inner end of the spring from its arbor when the energy of the spring is spent, so that the parts may continue to counter-rotate by inertia without damage to the spring. It is equipped with a lighting system using flashlight bulbs and batteries to show flashing light through window apertures and circular holes in the rim of the upper part. The batteries are contained in a central tubular shaft, and the flashing effect is produced by a bimetal thermal relay in the circuit, controlled by a switch on the upper part. When in operation the toy rests on a tricycle gear of three hollow spheres on axles radially disposed in the base to allow free rotation of the base. All parts except light bulbs, batteries, wiring, contact parts, switch and relay, and parts necessarily made of metal such as springs, axles, a ring carrying a hook to engage the inner end of the main spring, and bolts for assembly, may be made of impact-resistant synthetic plastic insulating material by injection molding or other appropriate process. External parts are covered with paint to resemble gleaming metal, and window apertures and illumination holes are covered with thin tinted transparent plastic film. **PATENT 1,127,849.** Write: James R. Russell, Apartment 401, 214 Agnes Street, New Westminster, B.C. V3L 1E6 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.

Process for the Selective Removal of Impurities Present in Sulfidic Complex Ores, Mixed Ores or Concentrates/320

Méthode d'extraction sélective des impuretés en présence dans des minerais suffureux complexes, ou les mélanges concentrés apparentés/320

A process for the selective removal of the impurities, arsenic, antimony, selenium, tellurium and bismuth, present in sulfidic complex or mixed ores and concentrates or industrial precipitates containing similar minerals, by breaking up and rearranging, at an elevated temperaure of 600–900°C and a high partial pressure of at least 0.2 atm of elemental sulfur, the minerals present in the raw material, in order to cause the formed new impurity compounds to pass into the gas phase, wherein the rearranging is carried out in a gas atmosphere which, in addition to sulfur, contains a sulfur halide in order to halogenate the impurity compounds which have passed into the gas phase, to form stable halides which no longer affect the vaporization equilibrium. **PATENT 1,127,853.** Write: Outokumpu Oy, P.O. Box 280, SF-00101 Helsinki 10, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Diversion Sluice Gate with Wheel Retracting System for Hydro-Electric Plant/320

Vannes hydroélectriques de dérivation avec système d'escamotage des roues/320

Cette invention a pour objet une méthode de fermeture d'une galerie de dérivation provisoire telle que celle utilisée pour détourner le lit d'une rivière lors de l'aménagement des fondations d'un barrage. Cette méthode qui comprend la descente d'une vanne montée sur roues à axe fixe le long de rails disposés de chaque côté de la galerie, et l'escamotage ultérieur des roues de la vanne de façon à obturer de façon étanche la galerie lorsque la pression hydrostatique atteint une certaine valeur, est caractérisée en ce que l'escamotage ultérieur des roues s'effectue de façon à éviter tout choc, par déformation plastique et graduelle d'une pluralité de goujons de flexion maintenant en position l'axe de chaque roue lors de la descente de la vanne. La déformation des goujons amène en effet les roues à s'escamoter par modification de l'orientation ou déplacement de leurs axes par rapport à la vanne. L'invention a également pour objet la vanne à roues escamotables permettant de mettre en oeuvre la méthode précédemment décrite. **BREVET 1,127,856.** Écrire à: Industries Couture Limitée, 2007 boulevard Talbot, Chicoutimi, Québec G7H 5H4 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.

Device for Controlling Functional State of Central Nervous System/320

Dispositif de contrôle du fonctionnement du système nerveux central/320

The device comprises a source of light signals which produces light signals of the seven colors of the visible spectrum, and a source of audio signals which produces audio signals of seven pitch ranges. The two sources are controlled by a system comprising a switch which determines the direction of change of color and pitch, and a modulator unit which determines the desired frequency, amplitude and duration of signals. The modulators of the latter unit are controlled by units which set the frequency, amplitude and duration of signals. The order of changing the color and pitch is set by the switch. A special unit is provided to set the mode of operation, whereby the device can be used either to relax or stimulate a patient as required. Finally, the device includes a programming unit which sets the pattern of change of the signals acting on the central nervous system according to changes in the psychophysiological state of the patient. The device is advantageous in that it controls the functional state of the central nervous system with due regard for the psychophysiological state of the patient and it is effective in curing different disorders of the central nervous system. **PATENT 1,128,136.** Write: Nauchno-Issledovatelsky Institut, Gigieny Truda i, Profzabolevany Akademii Meditsinskikh Nauk SSSR, Moscow, Prospekt Budennogo 31, U.S.S.R. and send a copy of your initial correspondence to Canadian Embassy, 23 Starokonyushenny Pereulok, Moscow, U.S.S.R.

Time Delay Spectrum Conditioner/320

Conditionneur de spectre à retard/320

A device for delaying specified frequencies of a multiple frequency laser beam. The device separates the multiple frequency beam into a series of spatially separated single frequency beams. The propagation distance of the single frequency beam is subsequently altered to provide the desired delay for each specific frequency. Focusing reflectors can be utilized to provide a simple but nonadjustable system or, flat reflectors with collimating and focusing optics can be utilized to provide an adjustable system. **PATENT 1,128,182.** Write: 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 General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Sampler and Cell for Radon Detectors and Method of Using Same/320

Échantillonneur et cuve pour détecteurs de radon, et méthode d'utilisation/320

A relatively small diameter, relatively deep hole is made in the ground and a sampler tube is inserted therein. An acetate sleeve is detachably inserted into a chamber on the upper end of the sampling tube and the sampler is left for at least sixteen hours and preferably longer in order to permit radon gas to migrate up the tube. Daughter products of radon deposit on the acetate film which is then placed in a scintillation cell attached to the counting chamber of a scintillation counter, which counts the alpha emissions of the daughter products thereby permitting the amount of radon gas to be calculated. This method reduces considerably any contamination of the scintillation counting chamber so that cleansing is not necessary thus permitting a much higher level of productivity. The system is also totally insensitive to thoron so that no correction for thoron signals is required. The same method can be used to collect airborne samples by hanging the acetate strip in a desired location for at least four hours and containing alpha emissions from said strip as above. **PATENT 1,128,216.** Write: Brian Powell, 221-29th Street, West, Saskatoon, Saskatchewan S7L 0L8 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.

Plow Blade Attachment/320

Fixation de lame de boutage/320

An attachment is disclosed that is mountable to a scraper blade carried on a powered vehicle such as a log skidder. The attachment is easily mounted and removed from the scraper blade to enable a log skidder to clear roadways of snow and other loose materials. The attachment includes a carrying frame that is releasably mountable directly to the scraper blade. A plow blade is pivotably mounted to the carrying frame. The plow blade is selectively pivotal at its center about a vertical axis to alternate positions forming acute angles with respect to the scraper blade. Therefore, loose material may be plowed to either side of the path desired to be cleared by the blade. Struts are provided that are interchangeable at opposite ends of the blade to enable selective angular positioning of the plow blade. **PATENT 1,128,304.** Write: Peter W. Fezatt, P.O. Box 2407, Orofino, Idaho 83544; James A. Harvey, Box 13332, Benton City, Wa. 99320; Ronald A. Harvey, Route 3, Box 86AA, Orofino, Idaho 83554 and send a copy of your initial correspondence to Canadian Consulate General, 412 Plaza 600, Sixth and Stewart, Seattle, Washington 98101-1286, U.S.A.

Depth Control Device for Disc Gangs/320

Régulateur de pénétration pour trains de disques de charrue/320

Each disc gang is provided with a castoring trailing depth control assembly which includes a corrugated cylinder journalled for rotation between a fork which in turn is castor mounted in the frame. This frame is secured to the disc gang frame in cantilever fashion and a pair of tension chains extend from the rear of the frame of the depth control assembly to

adjacent the disc gang axle or spindle thus holding up the disc gangs and maintaining the depth of penetration thereof. **PATENT 1,128,356**. Write: Darryl R. Perry, Box 8, Hawarden, Saskatchewan S0H 1Y0 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.

Rod Weeder Having a V-Shaped Rod/320

Extirpateur doté d'une tige en V/320

In agricultural tillage equipment, the rod weeder is noted for its efficient weed-killing abilities. Conventional rod weeder equipment consists of a rod of desired length pulled beneath the surface of the ground, rooting out the weed and exposing its roots. Methods which have been devised to prevent weed build-up on the rod usually employ hydraulic or mechanical power to turn the rod. In this invention the rod is pulled by one support arm and bent at an angle to form a V shape enabling trash and weeds to slide off the rod. A spring and hinge assembly attached to this support arm hold the rod in position for travel and yet allow some flexibility to eliminate bending the rod when travelling in rocky ground. **PATENT 1,128,357**. Write: Ronald D. Hudson, R.R. 3, Site 2, Box 7, Coronation, Alberta T0C 1C0 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.

Ozone Generator/320

Générateur d'ozone/320

An ozone generator comprises a housing provided with a gas flow channel along which oxygen or an oxygen-containing gas is arranged to flow. A pair of electrodes are positioned on opposite sides of the glas flow channel, at least one of which is of a multi-finned construction and the fins of which extend towards the other of said electrodes. **PATENT 1,128,464**. Write: Yu Pin, Block 19, 211-C Corporation Drive, Jurong Town, Singapore 22 and send a copy of your initial correspondence to Canadian High Commission, Maxwell Road, P.O. Box 845, Singapore 9016.

Méthode et appareil pour mise au point automatique d'un objectif/320

Continuation de la page 10

l'exploitation des phénomènes hors-point, un fonctionnement passif, une précision égale à la profondeur du champ de l'objectif et une seule partie mobile (aucune s'il y a simulation par un cristal liquide). Écrire à: M. William J. Harrisson, P.O. Box 6366, San Rafael (Californie) 94903 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco (Californie) 94111-3468.

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Navy

U.S. Department of the Navy
Assistant Chief for Patents
The Office of Naval Research
Mailing Code: 302
Arlington, Virginia 22217

Method and Apparatus for the Continuous Extraction of Ingredients from Samples/320

Filed October 22, 1981, by the Department of the Air Force. A method and apparatus for continuous extraction of an ingredient from a sample employs a container having a solvent therein selected for its ability to extract the ingredient. The sample is held against a porous substrate having a lower portion which is located below the sample and placed in the solvent, and an upper portion which is located above the sample and exposed to a selected atmosphere. In a continuous supply from the container, solvent is caused to ascend the substrate by capillary action, penetrate the sample, extract the ingredient therefrom, and continue to ascend the upper portion of the substrate where it evaporates, depositing the extracted ingredient thereon. The upper portion of the substrate containing the ingredient may then be removed. Write: **PAT-APPL-6-313 859**, NTIS.

Méthode et appareil destinés à l'extraction continue des ingrédients d'échantillons/320

Surface Effects Take Off and Landing Aircraft/320

Filed October 22, 1981, by the Department of the Air Force. The patent application describes a surface effects machine which is also structured and configurated to function as a distributed load (i.e., span loaded, or flying wing) transport type aircraft. The aircraft has a wing-fuselage portion essentially in the form of an isosceles trapezoid, with the larger base disposed as the leading edge, and with the two legs forming two trailing edges and having a flap along the entire length of each trailing edge. A plurality of inflatable and extendable skegs are disposed under, and are connected, to the wing portion of the aircraft to utilize the catamaran principle. Additionally, the skegs are used in combination with the large flaps to capture air under the wing and, assisted by the ram effect, to shorten take off and landing distances, and even to allow landings at zero forward speeds. The aircraft can carry heavy payloads (130 to 220 tons) efficiently over long distances; can loiter; and can land on any reasonably flat surface (including land, water, ice, snow, sand and the like) without the need of runways. Write: **PAT-APPL-6-313 860**, NTIS.

Avion à atterrissage et décollage en effet de sol amélioré/320

Programming Signal Processing Device/320

Dispositif de traitement de signaux de programmation/320

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed October 30, 1981, by the Department of the Air Force. The device performs a function for image processing, where there are mixed weights for any specific application. It uses a PROM and accumulator algorithm, in which the memory stores values in 2 (M) words, with addresses formed from one bit of each data word in a given bit position. In operation the most significant bit of each data word is used first to address memory, and in successive clock cycles the other bit positions are used down to the least significant. The memory output words are supplied to the adder-accumulator, and in each clock cycle the adder-accumulator output is shifted left one bit and used as a second input thereof. Then if the data words have N bits designated j = O to N-1, after N clock cycles the memory output words have each been effectively multiplied by 2(j) and accumulated in the sum. Write: **PAT-APPL-6-315 599**, NTIS.

Optical Power Source Control System/320

Système de commande de source de puissance optique/320

Filed October 30, 1981, by the Department of the Air Force. An optical power source control system having a four port optical coupler, an optical receiver and associated comparator circuits operably connected to the optical transmission line connecting the source to an output connector. When the output connector is mated with another connector, the receiver senses the optical energy reflected from the glass/air and air/glass interfaces of the connectors and provides an appropriate signal. This signal is sufficiently high when compared to a threshold voltage level to permit the power source to operate. When the output connector is in the unmated condition the reflected optical power from the air/glass interface is no longer present and therefore the signal from the receiver falls below the threshold voltage level. With this reduced signal level, power flow to the optical source is removed or reduced thereby controlling the operation of the optical power source. Write: **PAT-APPL-6-316 703**, NTIS.

Flameholder Stabilization Plate for an Aircraft Engine Afterburner System/320

Stabilisateur de flamme amélioré pour réacteur à tuyère de postcombustion/320

Filed November 5, 1981, by the Department of the Air Force. The present invention obviates the problems of prior art afterburner baffles by providing a flameholder stabilization plate connected to the baffle within the cold air stream flow which directs a leaner fuel-air mixture to a flame recirculation zone behind the baffle and a more efficiently burning, richer fuel-air mixture to combustion zones at lateral sides of the baffle. The plate promotes these respective variations in fuel-air mixtures relative to the baffle by dispersing some large droplets of fuel into small droplets thereof which flow to the recirculation flame zone behind the baffle and by directing the flow of other large droplets of fuel to the lateral combustion zones. In such manner, the flame in the recirculation zone burns with more stability during augmentor operation which substantially reduces, if not eliminates, low frequency rumble in the afterburner system. More particularly, the flameholder stabilization plate includes a main body attached to the baffle and a plurality of extension tabs extending laterally from opposite sides of the body for substantially blocking contact of cool fuel droplets with the baffle. This shielding allows the baffle to remain at a high temperature and thus the flame held thereby more stable. The baffle is comprised by a pair of legs connected together in a V-shaped configuration with an apex formed by the connection of the legs facing upstream relative the hot gas stream flow and cold air stream flow and the legs extending downstream relative the flows. The main body of the plate extends transversely to the baffle through a pair of slots formed in the legs thereof rearwardly of, but adjacent to, the portion of the apex of the baffle disposed within the cold air stream flow. Write: **PAT-APPL-6-318 652**, NTIS.

Improved Coaxial Cable Design/320

Câble coaxial amélioré/320

Filed November 5, 1981, by the Department of the Air Force. It has been discovered that the transient voltage which develops on the outer sheath of a coaxial cable under pulse voltage excitation is a result of the inequality between the self inductance of the sheath and the mutual inductance between the sheath and the center conductor. The self inductance of the sheath is always less than the mutual inductance by a small amount because of the finite thickness of the sheath. By manipulating the design of the outer sheath, an equality between the sheath self inductance and the sheath to inner conductor mutual inductance can be achieved which results in a cancellation of the transient voltage on the sheath when the cable is pulsed. Write: **PAT-APPL-6-318 653**, NTIS.

Hot Pressing of Machinable Silicon Nitride-Boron Nitride Composite/320

Compression à chaud d'un composé usinable de nitrure de silicium et de nitrure de bore/320

Filed November 12, 1981, by the Department of the Air Force. In accordance with the present invention, there is provided a novel composition consisting essentially of silicon nitride and boron nitride. Also provided in accordance with the present invention is a method for fabricating a silicon nitride body which comprises the steps of (1) intimately mixing (a) a silicon compound selected from the group consisting of alpha silicon nitride, amorphous silicon nitride, and polymeric silicon diimide powders, (b) boron nitride and (c) a sintering aid selected from the group consisting of compounds of the formula MO2, M2O3, MH3 and MN, wherein M is an element of the lanthanide series; (2) placing the resulting mixture in a suitable

compression zone, and (3) compressing and heating the mixture in the compression zone at an elevated pressure and temperature for a time sufficient to provide a resulting densified body. The resulting composites exhibit improved electrical and thermal shock behavior. Thus, the material provided in accordance with this invention has properties which make it suitable for varied applications such as hot structural components in high performance turbine and internal combustion engines, as well as for antenna windows and radomes. The resulting composites also can be machined using conventional carbide tooling. Write: **PAT-APPL-6-320 829**, NTIS.

Powered Articulated Headrest System/320

Appui-tête articulé à commande électrique/320

Filed November 12, 1981, by the Department of the Air Force. The instant invention provides a powered articulated headrest system wherein as the headrest pivots aft, the width of the headrest decreases thereby reducing any interference with aft visibility, and simultaneously the height of the headrest decreases thereby further reducing any interference with aft visibility and also eliminating any scrubbing action between the headrest and the pilot's head. It is here to be noted that, although the aeronautical terms 'aircraft', pilot', 'aft' and the like have been used, the instant inventive powered articulated headrest system is for use with any seat structure; and, that the use of aeronautical terms is by way of illustration only, and not by way of any limitation. Write: **PAT-APPL-6-320 893**, NTIS.

Retinal, Camera for Small Undilated Pupils/320

Retinal, appareil photographique conçu pour petites pupilles non dilatées/320

Filed November 16, 1981, by the Department of the Air Force. The present invention provides an improved camera system designed to obviate the problems associated with the camera system of cited patents and to satisfy this need. The unique technique of the present invention incorporated by the improved camera system employs a tiny solid mirror, in contradistinction to the annular mirror with a central hole of the prior art, for reflecting the collected illuminating rays of light from the light source into the eye. The tiny mirror is suspended in front of the eye at the location of a beam crossover point formed by the collected rays of light coming from the light source. The angle in which the rays cross over at this point or region depends on the focal length of the light collecting lens, its diameter and other known parameters. This angle should be of a size fitting the pupil opening of the eye being examined. The eye pupil determines the area of retinal illumination. The tiny mirror is also suspended in the space traversed by light rays reflected from the retina; however, because of its small diameter, the mirror obstructs very little of the retinal-reflected rays to be collected by the imaging arrangement of the camera system. Write: **PAT-APPL-6-322 043**, NTIS.

Aircraft Ejection Seat Catapult Device/320

Catapulte pour siège éjectable/320

Filed November 25, 1981, by the Department of the Air Force. The patent application relates to a device whereby the acceleration applied to an ejection seat during the catapult phase of emergency escape from an aircraft is limited to a maximum value which can be tolerated by the ejectee by incrementally venting exhaust gas from the high pressure chamber of the ejection catapult. Such venting may be accomplished mechanically by a mass which acts in response to acceleration to open venting orifices, the mass being preloaded to prevent its movement until a desired acceleration is experienced. Alternatively, venting may be accomplished electromechanically. Write: **PAT-APPL-6-324 899**, NTIS.

Aircraft Having Variable Incidence Forward-Swept Wing/320

Avion avec voilure à flèche/320

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed November 25, 1981, by the Department of the Air Force. The patent application describes an aircraft having a fuselage and a pair of forward-swept wings includes a wing carry through extending transversely through the fuselage joining the wings together to form a unitary wing structure, two hinge assemblies, each located adjacent a different one of the wings for rotatably mounting the wing structure to the fuselage and located forwardly of the wing carry through and on a spanwise axis intersecting the aerodynamic centers of the wings, and two actuators, each located rearwardly of the hinge assemblies and extending between the fuselage and a different one of the wings for selectively rotating the wing structure about the hinge assemblies. The hinge assemblies attach the wing structure to the fuselage such that the axis of rotation of the wing structure is substantially collinear with the axis intersecting the aerodynamic centers of the wings so that relatively little force is required of the actuators to vary the angle of incidence of the wing structure. Write: **PAT-APPL-6-324 913**, NTIS.

Sobel Edge Extraction Circuit for Image Processing/320

Circuit d'extraction de flanc de Sobel pour le traitement des images/320

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed November 25, 1981, by the Department of the Air Force. The Sobel square root algorithm s = the square root of ((a + 2b + c) - (g + 2f + e)) squared + ((a + 2H + g) - (c + 2d + e)) squared, with 8-bit input data from a 3 × 3 window and 6-bit output is performed on a single VLSI chip, using a square table only 128 × 13 and a square root table only 1027 or 1032 × 6 in ROM. The random logic including adders and clock circuits are also on the same chip with the ROM tables. Write: **PAT-APPL-6-324 914**, NTIS.

Grease Compositions/320

Graisse synthétique/320

Filed December 3, 1981, by the Department of the Air Force. A grease composition consisting essentially of a fluorinated polysiloxane base fluid, a fluorinated thickening agent and an oxidation inhibiting amount of p,p'-dioctyldiphenylamine. Write: **PAT-APPL-6-326 971**, NTIS.

Solar Flux Guides and Systems Employing the Same/320

Guides pour flux solaire et systèmes connexes/320

Filed November 9, 1981, by the Department of the Army. Elongated, hollow flux guides are adapted to efficiently transport high density solar flux over relatively long distances. The guides may be cylindrical, curved, or conically shaped. The conical guides provide further concentration of the already concentrated solar flux. Systems including parabolic collectors and utilizing the novel flux guides to transport the flux collected thereby to a remote point of utilization are also disclosed. Write: **PAT-APPL-6-319 495**, NTIS.

Laminar Proportional Amplifier and Laminar Jet Angular Rate Sensor with Rotating Splitter for Null Adjustment/320

Amplificateur proportionnel laminaire et capteur laminaire de fréquence angulaire d'un jet, muni d'un dispositif de séparation rotatif pour le réglage à zéro/320

Filed November 19, 1981, by the Department of the Army. This and other objects of the invention are achieved through supplying a fluid amplifier having a fluid input, control pressure inputs to supply a control pressure to control fluid input, variable position flow splitter for splitting the supply stream between at least two output receivers, and outputs to allow the fluid to be evacuated from the fluid amplifier. In this invention, the flow splitter between the output receivers comprises a generally triangular plate which is fixedly mounted to a rod which is rotatively mounted in the body of the amplifier to allow the generally triangular flow splitter to be rotated to properly apportion flow between two outlets. A locking nut is provided to lock the plate in position to prevent it from being displaced subsequent to the flow splitting adjustment. These and other objects of the invention are achieved in the embodiments. Write: **PAT-APPL-6-323 146**, NTIS.

Adaptive Threshold Detection Utilizing a Tapped Charge Transfer Device Delay Line/320

Détection de seuil variable au moyen d'une ligne à retard munie d'un dispositif de transfert de charge à prises/320

Filed December 17, 1981, by the Department of the Army. A constant false alarm rate is achieved in a moving-target-indicator radar by controlling the threshold in doppler channels according to the level of clutter in range gates near the range gate being examined for the presence of a target. Processing is simplified by using analog signals in charge coupled devices for target detection. Write: **PAT-APPL-6-331 847**, NTIS.

Use of Ultrasonic Energy to Improve Nitrocellulose Purification/320

Utilisation d'énergie ultrasonore pour améliorer la purification des nitrocelluloses/320

Filed December 24, 1981, by the Department of the Army. The instant invention relates to a process for removing trace sulfuric acid from nitrocellulose fibers by dispersing the fibers in water and then subjecting them to ultrasonic energy for a time period and at an energy level sufficient to enhance the nitrocellulose fibers contact with water and facilitate sulfuric acid dispersal in the water. The waste water containing the traces of sulfuric acid contaminant from the nitrocellulose fibers is removed and the purified nitrocellulose fibers recovered. Write: **PAT-APPL-6-334 118**, NTIS.

Method Producing Smooth Metallic Layers on a Substrate/320

Méthode de production de couches métalliques lisses sur un substrat/320

Filed January 11, 1982, by the Department of the Army. This invention relates in general to a method of producing a smooth layer of a metal on a substrate and in particular, to a method of producing a smooth layer of a metal on a glass substrate wherein a large differential expansion coefficient of the metal relative to the glass substrate produces very large stresses in the metal when the metallized substrate is subjected to a post deposition anneal. Thin film conductors separated by thin film insulators are the dominant components of thin film circuitry. Electrical shorts in these components may result from roughness in the bottom conductor. The roughness can develop during the depositions of the metal but it increases when the substrate is annealed. Aluminum is a commonly used conductor material for thin film circuits. Pure aluminum films on glass become badly pock marked with spikes after an eight to ten hour anneal at 400 C. The spikes are believed to develop because the large differential expansion coefficient of the aluminum relative to the glass produces very large stresses in the aluminum. The stress is relieved and the energy thereby reduced when the aluminum atoms migrate in the plane of the film to nucleation centers where crystallites grow in the third dimension, out of the plane, viz, spikes. Write: **PAT-APPL-6-338 790**, NTIS.

Hybrid Unstable Resonator Laser Cartridge/320

Résonateur hybride instable de laser/320

Filed January 18, 1982, by the Department of the Army. A hybrid unstable resonator cartridge comprising a Nd:YAG laser rod, passive Q-switch, resonator and collimating optics which are bonded together to form an integral assembly with the Q-switch being configured of a nickel-complex dyed polymethylmethacrylate plastic whose optical density is accurately controlled. Additionally, the bonding of the components is made by an optical grade adhesive having the required mechanical properties to bond and ensure the stability of the integrated structure over relatively wide ranges of temperature and shock encountered in portable applications. Write: **PAT-APPL-6-340 574**, NTIS.

Skin Bonding Inspection Fixture/320

Dispositif d'inspection des liaisons superficielles/320

Filed January 25, 1982, by the Department of the Army. A test fixture for detecting delamination of laminated structures, comprising a contact head with a first cavity in one flat surface thereof with the shank of a dial indicator inserted into a second co-axial cavity in the opposite face of said contact head. The contact point of said indicator is located near the plane of the rim of said first cavity. The first cavity is evacuated so that as the fixture moves over a laminated surface, improperly bonded laminates will be urged into the first cavity under the influence of the vacuum therein and produce a reading on the dial gauge. Write: **PAT-APPL-6-342 339**, NTIS.

Suppression of Vibration Effects on Piezoelectric Crystal Resonators/320

Suppression des effets des vibrations sur les résonateurs à cristaux piézoélectriques/320

Filed January 28, 1982, by the Department of the Army. An active method and apparatus for suppressing or cancelling the effects of vibration on quartz crystal controlled oscillators generates an electrical signal which is a replica of the vibration acting on the crystal resonator. The signal is thereafter properly phased and applied directly to the crystal electrodes, thereby operating to substantially eliminate unwanted vibration-induced sidebands in the signal output of the oscillator. Write: **PAT-APPL-6-343 644**, NTIS.

Prodrug Derivatives of 9-beta-D-Arabinofuranosyl-2-fluoroadenine/320

Dérivés précurseurs de la 9-béta-D-Arabinofuranosyl-2-fluoroadénine/320

Filed February 24, 1981, by the Department of Health and Human Services. The 5'-formate and the 5'-phosphate derivatives of 9-beta-D-arabinofuranosyl-2-fluoroadenine have been prepared as prodrug forms of the anti-cancer agent 9-beta-D-arabinofuranosyl-2-fluoroadenine, known as F-ara-A. These derivatives are quite water soluble whereas F-ara-A itself is sparingly soluble in water or in any organic solvents. Delivery of these prodrug forms to mice with L1210 leukemia results in the formation of higher levels of the triphosphate of F-ara-A, the active form of the drug, in the target L1210 leukemia cells. These prodrug forms are much more active chemotherapeutically than 9-beta-D-arabinofuranosyladenine, known as ara-A, and equivalent in activity to the combination of ara-A and 2'-deoxycoformycin, known as 2'-dCF, an effective in vivo inhibitor of adenosine deaminase, a ubiquitous enzyme that destroys ara-A in vivo. Write: **PAT-APPL-6-237 617**, NTIS.

The Use of Context to Simplify Two-Dimensional Computer Input/320

Utilisation d'un contexte pour simplifier les données d'entrée bidimensionnelles d'un ordinateur/320

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed November 16, 1981, by the Department of Health and Human Services. The invention relates to a method for typing and displaying two-dimensional figures such as chemical structures. More specifically, it relates to a method for minimizing the number of key strokes required to enter a two-dimensional figure into a computer for display at a computer-controlled display unit, such as a cathode ray tube (CRT). Write: **PAT-APPL-6-321 689**, NTIS.

Hydrocephalic Antenatal Vent for Intrauterine Treatment/320

Orifice permettant le traitement in utero de foetus hydrocéphales/320

Filed November 30, 1981, by the Department of Health and Human Services. The invention relates to surgical devices designed for the draining of cerebrospinal fluid, and more particularly to an indwelling valve for in-utero treatment of hydrocephalic fetuses. Write: **PAT-APPL-6-325 730**, NTIS.

Open Surface Flotation Method for Extracted Crude Oil/320

Méthode de flottation des pétroles pour leur extraction/320

Filed May 29, 1981, by the Department of the Interior. A method is described for the separation of extracted viscous crude oil placed in a reservoir of an opened cell. Materials such as oil shale, oil sand, or tar sand may be involved. Hot water is introduced to the top surface of the reservoir material in the cell while steam is injected into a steam gallery running through the cell. The hot water and steam may contain a surfactant. The buoyancy of the crude oil creates an artificial water drive which causes the water and oil to 'flip-flop' so that the oil rises to the top of the reservoir and separates from the remainder of the reservoir material. This separated oil may be removed from the cell and the remaining material disposed of. Write: **PAT-APPL-6-268 592**, NTIS.

Power Supply for an Intrinsically Safe Circuit/320

Bloc d'alimentation à sécurité intégrée/320

Filed July 21, 1981, by the Department of the Interior. An intrinsically safe power supply with a current interrupter connected between a nonintrinsically safe power supply and an electrically operated load is described. The interrupter has a voltage sensing network, a pass transistor, and control circuits to binary operate the interrupter so that it is either OFF or ON. A reset signal turns a flip-flop within the interrupter back on after the interrupter has been turned off by the detection of a fault or when the interrupter is being turned on. This interrupter can detect two types of circuit faults. One is an overcurrent fault caused either by a short on the output of the interrupter or a short in the load. The other detectable fault is an excessive voltage at the input to the interrupter. The interrupter circuit is preceded by active current and voltage regulation circuits and electronic overvoltage crowbar circuits. In one embodiment, the intrinsically safe power supply is used to control the flow of power to an intrinsically safe mine monitoring system. Write: **PAT-APPL-6-285 247**, NTIS.

Extraction of Aluminum from Clay/320

Extraction d'aluminium des argiles/320

Filed August 3, 1981, by the Department of the Interior. The patent application describes a process for recovery of aluminum from clay comprising treating the crushed clay with water in the form of a fine mist, and in an amount sufficient to form compact surfaces on the particles without agglomeration thereof, and subsequently drying, calcining and leaching with a mineral acid to extract aluminum from the clay. Write: **PAT-APPL-6-289 613**, NTIS.

Recovery of Chromium from Waste/320

Récupération du chrome dans les déchets/320

Filed September 10, 1981, by the Department of the Interior. This invention relates to recovery of a usable chromium product from wastes such as waste solutions from plating and etching processes. Conventional recovery processes usually involve reduction of any Cr(+ 6) to Cr(+ 3), followed by addition of alkali to precipitate chromium and other metallic hydroxides. The resulting sludge is usually landfilled. However, in addition to creating environmental problems, this disposal method wastes potentially high-value secondary resources. It has now been found, according to the process of the invention, that chromium may be selectively precipitated from plating and etching wastes by means of benzoate ion. Thus, chromium is separated from the waste solutions with minimal contamination from other cations in the waste. Write: **PAT-APPL-6-300 834**, NTIS.

Splitting Fluid Samples into a Plurality of Representative Sub-Samples/320

Fractionnement d'échantillons liquides en un grand nombre de portions représentatives/320

Filed October 13, 1981, by the Department of the Interior. This invention relates to the field of sample splitters and tollers, and in particular to the splitting of fluidal material samples into a plurality of representative subsamples, said subsamples being consistently separated into predetermined proportions. Write: **PAT-APPL-6-310 584**, NTIS.

Froth Flotation of Rutile/320

Flottation du rutile par écumage/320

Filed October 15, 1981, by the Department of the Interior. Rutile is recovered from copper ore tailings by means of a froth flotation process comprising: (a) flotation of sulfides and carbonates at a pH of about 9 to 10, using sodium isopropyl xanthate and sodium oleate as collectors, and detrine as rutile depressant, and (b) flotation of rutile from the resulting tailings at a pH of about 2 to 3, using hydrofluoric acid as a rutile selectivity-assisting agent and water-soluble petroleum sulfonate as rutile collector. Write: **PAT-APPL-6-311 487**, NTIS.

Long Wavelength Acoustic Flowmeter/320

Débitmètre acoustique à grande longueur d'onde/320

Price per copy from NTIS: PC U.S. $9.00/MF U.S. $4.00, filed September 10, 1981, by the National Bureau of Standards. The present invention relates generally to flowmeters for measuring volume flowrate in flowing fluids and to instruments by measuring the mass flowrate, temperature and density of flowing fluids. It relates specifically to methods of and instruments for using acoustical techniques for accomplishing these measurements in a pipe. Write: **PAT-APPL-6-300 830**, NTIS.

Digital M of N Correlation Device Having Increased Bit Rate/320

Dispositif de corrélation numérique M de N améliorant le débit binaire/320

Filed June 1, 1981, by the Department of the Navy. A digital m of n correlation device using signal and reference shift registers, modulo 2 adders, unique 1-bit D/A converters, and single resistor analog summing provides a very fast correlation product for pulse compression modulations such as phase or frequency shift keying. The compression ratio for the digital m of n correlation device, according to the present invention, is 168:1 (equal to the number of bits). The device is capable of bit rates in excess of 100 Mpbs and is well suited for LSI fabrication. Write: **PAT-APPL-6-269 125**, NAVY.

Gain-Step Companding Analog to Digital Converter/320

Convertisseur analogique-numérique compresseur extendeur à gain élevé/320

Filed June 25, 1981, by the Department of the Navy. A system for analog-to-digital conversion provides a dynamic range in excess of 120 dB yet requires an output of only 9 bits. These bits are utilized to transmit a companded digital word format including sign information. Use of this companded output format results in significant transmit bandwidth reduction compared with transmit bandwidths required for conventional linear bit formats. This companding results in a worse case error of 3.125%. Write: **PAT-APPL-6-277 447**, NAVY.

Method of Determining the Material Composition of a Dielectrically Coated Radar Target/ Obstacle/320

Méthode de détermination de la composition des cibles et des obstacles radar à revêtement diélectrique/320

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed June 26, 1981, by the Department of the Navy. An apparatus for and a method of determining the material properties of a dielectric and/or conducting radar target by deciphering the backscattered signals returned from the target is disclosed. The resonance 'code' of the echo signals from the target is a function of the width and spacing of the resonant spectral lines in the transverse electric (TE) and transverse magnetic (TM) modes of the returned signals. The resonances present in any TE or TM mode become uniformly spaced and of uniform width at high frequencies. The uniform spacing between adjacent resonances is used to uniquely determine the dielectric constant of the material comprising the target, and their uniform width is used to uniquely determine its thickness. Write: **PAT-APPL-6-278 294**, NAVY.

An Overcurrent Protection System/320

Système de protection contre les surintensités/320

Filed July 27, 1981, by the Department of the Navy. An overcurrent protection system adaptable for use with power controllers of the single or multi-phase ac, or dc types includes a load current sensing element in combination with an overcurrent sensing/inverse time delay circuit, a power switch and a crowbar circuit. The system also includes a drive circuit, a drive circuit input current sensor, a trip signal detector and a logic circuit. The overcurrent protection system, according to the present invention, uses the drive circuit to power the overcurrent sensing/inverse time delay circuit, to drive the power switch, and to provide a coupling path for an overcurrent fault signal across electrical isolation interface(s) thereof to the logic circuit. Thus, the need for a separate isolated power supply for powering the overcurrent sensing/inverse time delay circuit and the need for separate optical and/or electromagnetic isolation interfaces for coupling of the overcurrent fault signal are eliminated. Write: **PAT-APPL-6-287 005**, NAVY.

Optimum Flow Noise Cancelling Hydrophone Module/320

Module à hydrophones pour annulation optimale du bruit d'écoulement/320

Filed July 28, 1981, by the Department of the Navy. An optimum flow noise cancelling module built according to the teachings of subject invention which rejects high wavenumber (2 pi/lambda), coherent flow noise while passing the acoustic signal of interest undisturbed at all relevant frequencies. This module a pair of hydrophones, adjustably mounted, and spaced such that the lead hydrophone and the lag hydrophone are less than flow noise coherence distance apart. Acoustic signal components from each of the hydrophones are essentially identical owing to the close hydrophone spacing relative to the long wavelength of the acoustical signals. Such signals thus reach each hydrophone essentially simultaneously. These

components cancel when the outputs of both hydrophones are combined leaving only a modified version of the flow noise components of the hydrophones. The modified flow noise components are then processed in such a way as to cancel the flow noise component from the combined lead hydrophone signal leaving only the acoustic signal of interest. An object of subject invention is to have a flow noise reducing device which optimally reduces high wavenumber coherent flow noise over all relevant frequencies. Another object of subject invention is to have an apparatus for reducing self-induced flow noise in an array where a module of two closely spaced hydrophones is substituted for each single hydrophone in the towed array. Write: **PAT-APPL-6-287 959**, NAVY.

Millimeter Wave Printed Circuit Mixer/320

Mélangeur en circuits imprimés pour ondes millimétriques/320

Filed July 29, 1981, by the Department of the Navy. A millimeter wave printed circuit mixer is disclosed which has extended RF and IF bandwidths. A dual ridge waveguide to slotline transition is utilized to bring the RF signal into the device. The waveguide to slotline transition is terminated in first and second shorted RF slotlines formed on the bottom of a dielectric substrate and extending from the RF slotline. A microstrip LO bandpass filter terminating in a microstrip line is formed on the dielectric substrate and is utilized to bring the local oscillator signal to the device. First and second beam lead diodes are connected from the microstrip line through apertures in the dielectric substrate and thence are connected across the dual shorted RF slotlines and connected to the ground plane conductor on the underside of the dielectric substrate. An IF filter is formed on the dielectric substrate and connected to the microstrip line for removing the IF signal from the device. The dielectric substrate and the elements formed on the substrate are enclosed within a waveguide housing. Write: **PAT-APPL-6-288 229**, NAVY.

Coupled Multilayer Antenna/320

Antenne multimode par couplage/320

Filed August 28, 1981, by the Department of the Navy. This invention relates to microstrip antennas which are conformable and have a low physical profile, and can be arrayed to provide near isotropic radiation patterns. Compact missile-borne antenna systems require complex antenna beam shapes. At times, these beam shapes are too complex to obtain with a single antenna type such as slots, monopoles, microstrip, etc., and requires a more expensive phased array. Studies indicate that a less expensive approach can be realized in a multi-mode antenna. A multi-mode antenna is a design technique that incorporates two or more antenna types into one single antenna configuration, and uses the unique radiation pattern of each antenna type to provide a combined desired radiation pattern. This requires techniques for exciting two or more antenna modes with one single input feed and also for controlling the excitation of the mode of each antenna type in order to better shape the combined radiation pattern. Write: **PAT-APPL-6-297 490**, NAVY.

Driver for High Power Sonar Systems/320

Mécanisme d'excitation pour systèmes sonar haute puissance/320

Filed September 14, 1981, by the Department of the Navy. A driver for high power sonar systems comprising a controller through which power from a ship's bus is distributed to a motor which turns an output shaft linked mechanically to the input shaft of a slip clutch, the output shaft of which connects to the input shaft of a mechanical energy storage flywheel. The flywheel output shaft in turn, mechanically drives a high frequency alternator whose electrical output is regulated by a field control which functions to key the output pulse at operating frequency to the transducer while also controlling pulse amplitude thereby achieving a frequency modulated output to permit high processing gains in the sonar receiver. The flywheel gains mechanical energy from the motor during the relatively long time between sonar pulses and delivers energy at high power to the alternator during the short pulse transmission period, assuring that the demand on the ship's power supply is the average sonar power rather than the much higher power required during the transmit period. Such a driver system (either singly or using two systems arranged in parallel to form a parametric source) permits ships with limited primary electric power to be outfitted with high power/performance sonar while improving the reliability of such sonar systems by eliminating the need for high power electronics. The most novel feature of this invention is using a parametric source to achieve FM glide wherein two primary frequencies are radiated to generate a difference frequency based on the non-linearity of seawater's transmission characteristics. Write: **PAT-APPL-6-301 488**, NAVY.

Multispectral I.R. Detector and Mosaic Focal Planes Therefrom/320

Détecteur I.R. multispectral et mosaïque associée de plans focaux/320

Filed September 14, 1981, by the Department of the Navy. A multispectral photovoltaic infrared detector comprises a plurality of layers of single-crystal, lead/alloy semiconductors on a single-crystal substrate of, e.g., barium fluoride, wherein each layer, except the one covering the substrate, partially covers the preceding layer; a layered concentration of oxides between the layers to provide a positive-charge barrier to the minority-charge-carriers in the layers; a P-N junction in each layer in the uncovered portion thereof; an electrical contact connected to each P-N junction; and an electrical contact on the P-type portion of least one semiconductor layer. Write: **PAT-APPL-6-301 704**, NAVY.

Protective Cover for Aircraft Having Conical Radomes/320

Revêtement protecteur pour les aéronefs ayant des radomes coniques/320

Filed September 21, 1981, by the Department of the Navy. This document describes a rain erosion resistant protective covering for aircraft having pointed or conical radomes and method of forming the protective covering. The protective covering is a layered material of polyurethane, contact adhesive, and polyethylene which is formed into the desired shape by precutting the material to the shape of the radome, placing the material in a mold, heating the material, and drawing a vacuum between the mold and material to draw the material into the shape of the mold, thus producing a cover having the shape of the mold. Write: **PAT-APPL-6-303 802**, NAVY.

Slotline Reverse-Phased Hybrid Ring Coupler/320

Coupleur hybride en anneau à ligne fendue et inversion de phase/320

Filed September 24, 1981, by the Department of the Navy. A slotline directional coupler is disclosed that introduces a 180 deg phase reversal in one of the arms of the coupler in order to isolate opposite ports of the coupler. One of the arms of the coupler is split and a quarter wave shorted slotline is added to each portion of the split coupler arm. The split coupler arm is bridged by a short conductive strap that, in a first embodiment, is grounded on both ends to the slotline ground plane or in a second embodiment, is extended to appear as though grounded. In the first embodiment, the conductive strap is separated from the ground plane by air. In the second embodiment the dielectric substrate of the coupler separates the strap from the ground plane. The conductive strap serves as a slotline-to-microstrip-to-slotline transition which introduces a 180 deg phase shift in a signal propagating through it. Write: **PAT-APPL-6-305 231**, NAVY.

Subwavelength Monopole Underwater Sound Radiator/320

Radiateur acoustique sous-marin à monopôle de sous-longueur d'ondes/320

Filed October 1, 1981, by the Department of the Navy. Optimum results are accomplished by configuring an acoustic radiator with two identical radiating faces in the form of hollow frustum-shaped shells. The pair of shells combine acoustic radiation characteristics which are a very rough approximation of a pulsating sphere with a relatively stiff lightweight structure. The large open ends of the shells face each other being connected by an intervening median ring assembly. The median ring assembly incorporates diaphragms which permit the shells to move a very short distance toward and away from each other. The small closed ends of the shells are rigidly fastened to each end of a driver which is positioned in the center of the chamber formed by the assembled shells and mediane ring assembly. The driver consists of an elliptically shaped magnetostrictive ring and piezoelectric spreader having inherent spring and motion amplification functions. By cyclically varying its dimensions in response to an electric power signal, the driver imparts an oscillatory motion to the shells, the shells being able to move because of the aforementioned diaphragms and the presence of a compressible volume consisting of an air-filled elastomeric tube routed past appropriate locations within the oil-filled radiator interior. The oil serves to transfer heat from the driver to the environment through its contact with cool radiator parts. Write: **PAT-APPL-6-307 557**, NAVY.

An Augmented Combustion Chamber Using VORBIX Principle with Core Stream Swirl/320

Augmentateur de combustion basé sur le principe VORBIX avec jet tourbillonnaire central/320

Filed October 23, 1981, by the Department of the Navy. The present invention relates to vortex burning and mixing (VORBIX) augmentors for aircraft engines, and more particularly to a VORBIX augmentor using core stream swirl. Accordingly, the present invention provides a VORBIX augmentor with core stream swirl. Means for swirling the core stream are situated upstream from the augmentor area to promote mixing of core and pilot flows. Such swirling means is provided by a redesigned turbine exit guide vane which produces an approximately 20 deg off axial swirl flow entering the augmentor area. Write: **PAT-APPL-6-314 161**, NAVY.

A Swirler Assembly for a VORBIX Augmentor/320

Ensemble tourbillonnaire pour augmentateur VORBIX/320

Filed October 23, 1981, by the Department of the Navy. The patent application describes an improved swirler assembly which prevents flow separation in the diffuser section. An annular swirling layer of air surrounds a linear jet with mixing occurring between these air flows prior to the diffuser section. A center tube through the swirler section provides the linear jet which mixes with the swirler flow in a mixing area prior to the diffuser section. Write: **PAT-APPL-6-314 285**, NAVY.

Compound Semiconductor Device Performance and Reproducibility Improvement/320

Amélioration de la reproductibilité et de la performance d'un dispositif à composé semiconducteur/320

Filed October 26, 1981, by the Department of the Navy. This application discloses a method of treating a compound semiconductor substrate material, such as GaAs, to improve activation efficiency, reproducibility and reliability. The substrate

is subjected to a prebombardment to a shallow depth by ions of an element such as Ar, or Ga, or As, which will not significantly affect the doping concentration of the substrate. Ions from an activator element, or elements, are then used for bombardment so that their peak concentration level occurs at a depth of about 80% of the peak concentration level of the prebombardment ions. This provides a very high activation efficiency and a sharp capacitance-voltage profile. Write: **PAT-APPL-6-315 121**, NAVY.

Switching Mixer/320

Mélangeur de commutation/320

Filed January 18, 1982, by the Department of the Navy. An RF system is disclosed in which the input mixer of the system is also used as a switch to allow the local oscillator to be used as the transmitter oscillator. The switching mixer may also be used as an attenuator or signal modulator. A local oscillator is connected via a filter to a 90 deg 3db hybrid coupler. Two of the four ports of the hybrid coupler are coupled through impedance matching networks to reversely polarized mixer diodes. Bias circuits are connected to the mixer diodes for variably adjusting the bias current to the mixer diodes to thereby adjust their reflection/absorption characteristics. A second filter is connected between the first filter and the hybrid coupler for extracting an intermediate frequency signal. A third filter is connected to the fourth port of the hybrid coupler and to the antenna of the RF system. The first and third filters pass RF and local oscillator signals and block IF signals. Write: **PAT-APPL-6-340 397**, NAVY.

Millimeter Wave Suspended Substrate Multiplexer/320

Multiplexeur à substrat suspendu pour ondes millimétriques/320

Filed January 21, 1982, by the Department of the Navy. A millimeter wave suspended substrate multiplexer is disclosed which is comprised of a plurality of hybrid-filter-hybrid channel dropping sections. The components of the multiplexer are enclosed in a metallic housing forming a cavity surrounding the multiplexer components. Each of the hybrid-filter-hybrid sections is comprised of first and second 90 deg hybrid couplers which are connected by a pair of identical bandpass filters. Spurious wave-guide energy propagation modes which would otherwise be generated in the cavity surrounding the 90 deg suspended hybrid couplers are eliminated by the use of a plurality of mode suppression pins extending between the top and bottom portions of the metallic housing and passing through the branch lines of the couplers. Write: **PAT-APPL-6-341 357**, NAVY.

Articulated Light Guide/320

Guide lumineux articulé/320

Filed January 28, 1982, by the Department of the Navy. An articulated light guide having internal mirrors and rotatable joints, provides a transmission path to a helmet mounted projector wherefrom light is transmitted onto a retroreflective screen to produce images utilized in simulation training. Located at the screen are photodiodes which detect the orientation of said images with respect to a reference and provide alignment signals to a servo-controlled image rotation device. Write: **PAT-APPL-6-343 682**, NAVY.

Phantom Computer Gating System/320

Système d'aiguillage de données pour ordinateur Phantom/320

Filed January 29, 1982, by the Department of the Navy. A system for gating a computer to receive navigational information from the position sensors of the periscope assembly of a submarine is disclosed. A first coil is connected as the load coil of an oscillator and is mounted in a stationary position on a submarine bulkhead. A second coil is secured to the periscope assembly and moves up and down with the periscope, in and out of magnetic coupling with the first coil. A third coil is secured to the periscope assembly and moves up and down with the periscope assembly. A fourth coil is secured to the rotatable periscope assembly and remains magnetically coupled to the third coil while the periscope is either rotated or moved up and down. A normally opened switch button on the periscope handle is electrically connected to the fourth coil. Depression of the switch button results in a load on the oscillator which is otherwise normally tuned to the same frequency as a second oscillator. Loading of the first oscillator coil causes the first oscillator to operate at a different frequency from the second oscillator. Write: **PAT-APPL-6-344 236**, NAVY.

Magnetic Ship's Hog Line Holder/320

Attache magnétique de câble de paillet/320

Filed February 2, 1982, by the Department of the Navy. A magnetic holder for pulling in and securing a platform and personnel to the hull of a ship to be serviced is disclosed. A lightweight corrosion resistant body member houses a permanent magnet and has an extension for receiving an elongated tool with which the holder is brought in contact with the ship's hull. A flexible resilient line attaches the platform to the holder and allows the platform to be pulled to the hull. Easy removal of the holder is accomplished by applying an external force to the extension creating a turning moment to overcome the magnetic holding force. Write: **PAT-APPL-6-344 450**, NAVY.

Magnetically-Unbiased Microwave Coupling Device/320

Coupleur micro-ondes sans champ magnétique de polarisation/320

Filed February 2, 1981, by the Department of the Navy. A microwave coupling device functioning as an isolator and as a switch. The device is constructed by placing a magnetically ordered crystal characterized by a uniaxial magnetic anisotropy field, such as a ferrite, through mutually aligned holes in a pair of orthogonally coupled transmission lines. No external magnetic field bias is required for nonreciprocal transmission of microwaves from one transmission line to the other. The preferred direction of propagation can be reversed by application of a transient magnetic field. Write: **PAT-APPL-6-345 107**, NAVY.

Angle of Arrival Measurements for Two Unresolved Sources/320

Mesure de l'angle d'incidence de l'écho provenant de deux cibles radar très rapprochées/320

Filed February 20, 1982, by the Department of the Navy. This document discloses a method of estimating the angles of arrival theta 1 and theta 2 of two closely spaced radar targets of which one target may be the virtual image of the other target. The targets are illuminated with a radar beam of wavelength WL, and the resulting echos from the targets are received at three directive antennas whose apertures are coplanar and whose phase centers are colinear and spaced a distance D apart. The received echos are converted to complex numbers S1, S2 and S3 representing the magnitude and phase of the respective echos received by the three directive antennas. If the plane of symmetry of the two targets is known, the value of a parameter WD is determined. If the plane of symmetry of the two targets is not known, the values of WD and WB are determined by solving for WD and WB which minimize L. Write: **PAT-APPL-6-347 676**, NAVY.

Licensing Opportunities Through Armstrong World Industries, Inc., U.S.

The following technologies are offered for manufacture in Canada under exclusive or non-exclusive licensing arrangements. Export rights are negotiable. Technical know-how will be provided to Canadian licensees. When requesting additional information, please quote the patent number. Write: Dr. Irving I. Bezman, Coordinator of Licensing, Research Center, Armstrong World Industries, Inc., P.O. Box 3511, Lancaster, PA 17604 — Telephone: (717) 397-0611 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Method of & Apparatus for Controlling Thickness of Coating Applied to Moving Fabric/320

The invention relates to a method of an apparatus for controlling the thickness of a coating applied to moving sheet material and, more particularly, to controlling the thickness of a coating applied to the upper surface of fabric moving between two points, the lower side of the fabric being unsupported between them. U.S. Patent Number 4,109,034.

Method & Apparatus for Determining the Density of Dry Fibers/320

This is a simple and accurate method for determining the density of a mat of dry fibers, including the voids between the fibers as part of the volume. It is useful for measuring a dry fibrous mat in configurations from which complete products will be made. U.S. Patent Number 4,116,072.

Tamper-Proof Safety Cut-Off Fluid Nozzle/320

A fluid nozzle has a shut-off feature which is activated when the fluid exiting the nozzle reaches a predetermined value, e.g. 30 psi, as set forth in OSHA regulations. U.S. Patent Number 4,124,164.

Optoelectronic Scanning Device/320

This patent describes a scanning device for detecting positions of inherent defects which have been identified by application of luminous paint to lumber such as is used in the production of furniture. The device features excellent response sensitivity, accuracy of detection, speed of operation and electrical stability. It is intended for use in computerized sawing operations. U.S. Patent Number 4,158,778.

Possibilités d'acquisition de licences par l'intermédiaire de la Armstrong World Industries, Inc., É.-U.

On offre les droits de fabrication au Canada des procédés technologiques suivants en vertu d'accords de licence exclusifs ou non exclusifs. Les droits d'exportation sont négociables. Le savoir-faire technique sera assuré aux détenteurs de licences canadiennes. Prière de citer le numéro du brevet dans toute demande de renseignements. Écrire à: M. Irving I. Bezman, Coordinator of Licensing, Research Center, Armstrong World Industries Inc., B.P. 3511, Lancaster, PA 17604 — Téléphone: (717) 397-0611 et faire parvenir une copie de votre correspondance initiale au consulat général du Canada, 3 Parkway Building, suite 1310, Philadelphie, PA 19102, États-Unis.

Méthode et appareil permettant d'ajuster l'épaisseur d'un revêtement appliqué sur un tissu en mouvement/320

Il s'agit d'une méthode et d'un appareil permettant d'ajuster l'épaisseur d'un revêtement appliqué sur des feuilles de tissu en mouvement et, plus particulièrement sur la face supérieure d'un tissu au fur et à mesure que celui-ci avance, ce tissu étant maintenu entre deux points sans que rien ne le soutienne entre ces deux points. Brevet américain numéro 4 109 034.

Méthode et appareil permettant de déterminer la masse volumique de fibres sèches/320

Il s'agit d'une méthode simple et précise permettant de déterminer la masse volumique d'un tapis de fibres sèches, avec le volume des vides séparant les fibres. Cette méthode permet de déterminer la masse volumique d'un tapis sec présentant déjà la forme à partir de laquelle le produit final sera fabriqué. Brevet américain numéro 4 116 072.

Bec incassable à robinet de sécurité/320

Il s'agit d'un bec pour fluides muni d'un robinet qui se ferme lorsque la pression du liquide libéré atteint une value prédéterminée, p. ex. 30 lb/pi^2, comme prévue dans les règlements de l'OSHA. Brevet américain numéro 4 124 164.

Détecteur optoélectronique/320

Il s'agit d'un dispositif permettant de détecter les défectuosités dans le bois qui ont été identifiées par l'application d'une peinture lumineuse semblable à celle utilisée lors de la fabrication de meubles. Électriquement stable, le dispositif présente une excellente sensibilité et fournit rapidement une réponse précise. Cette invention s'appliquera au sciage informatisé. Brevet américain numéro 4 158 778.

Lumber Marking Apparatus/320

This is an apparatus for spray marking lumber boards with paint at predetermined locations while they are being conveyed past the device for further processing. A tachometer and a photoelectric unit are employed for determining the location and speed of the board. A solenoid-operated paint sprayer is used to deliver the paint to the boards. Electronic control circuitry is provided to activate the paint sprayer and properly coordinate the operation of the sprayer with the location and speed of the board so that the board is marked at the desired locations. U.S. Patent Number 4,220,115.

Appareil à marquer le bois/320

Il s'agit d'un appareil servant à marquer des panneaux de bois. Ces panneaux, qu'on fait passer devant l'appareil avant de poursuivre le traitement, sont vaporisés d'un jet de peinture à des points prédéterminés. On se sert d'un tachymètre et d'une cellule photoélectrique pour déterminer l'emplacement des points et la vitesse du panneau. Un vaporisateur à solénoïde projette la peinture sur les panneaux. Un circuit électrique commande le vaporisateur et coordonne son déclenchement avec l'emplacement du point et la vitesse du panneau. Brevet américain numéro 4 220 115.

Tufting Machine Needle Drive Disengaging Mechanism/320

This invention relates to a mechanism for stopping the reciprocation of the tufting needle of a tufting machine whether it be for producing tufted loop pile or cut pile material. The invention also relates to the method of producing tufted loop pile or cut pile material having a portion of the backing thereof untufted by use of the invention, the needle drive disengaging mechanism. U.S. Patent Number 3,886,880.

Mécanisme de dégagement d'aiguille pour machine à boucle/320

Il s'agit d'un mécanisme bloquant le va-et-vient de l'aiguille d'une machine à boucler, qu'elle serve à produire un tissu à boucles coupées ou non coupées. L'invention comporte aussi une méthode permettant de fabriquer, grâce à ce mécanisme, un tissu à poils aux boucles coupées ou non coupées, présentant sur l'arrière des zones sans boucle. Brevet américain numéro 3 886 880.

Method & Apparatus for Measuring the Moisture Content of Wood/320

An improvement is made in devices for determining the moisture content of lumber by electrical resistance measurements. A biasing system is used in the measuring system so that the voltage supplied to the electrical contacts disposed in the wood may be adjusted. This arrangement allows for corrections to be made in the electrical operation of the device, which corrections compensate for anomalous properties of the wood. U.S. Patent Number 4,259,633.

Méthode et appareil permettant de mesurer la teneur en humidité du bois/320

Il s'agit d'une amélioration apportée aux dispositifs pour déterminer la teneur en humidité du bois par mesure de la résistance électrique. On utilise un circuit de dérivation de manière à pouvoir régler le courant fourni aux contacts placés dans le bois. De cette façon, on peut corriger la valeur du courant et ainsi compenser les écarts dus aux propriétés anormales du bois. Brevet américain numéro 4 259 633.

Seam Sealer Applicator Attachment/320

This is an attachment for applicators used to apply liquid adhesive to a seam between adjacent edges of floor covering. In use, the attachment provides sidewise stabilization for the applicator and a means for setting and maintaining the desired angle thereof relative to the surface of the floor covering as it is moved along the seam. U.S. Patent Number 4,260,273.

Accessoires pour applicateur de mastic/320

Il s'agit d'un accessoire pour applicateurs d'adhésif liquide servant à remplir les joints séparant les bords adjacents d'un revêtement de sol. Une fois en place, il stabilise l'applicateur dans le sens latéral et permet de régler et de maintenir l'angle désiré par rapport à la surface du revêtement, au fur et à mesure de l'application. Brevet américain numéro 4 260 273.

Gripper Shuttles/320

An improved configuration for the nose portion of a gripper shuttle is disclosed. A recess, which may be a concave depression, is formed in the arcuate edge of the tapered front end portion of a tubular shuttle having a gripper clamp mounted therein with the weft gripping jaws positioned even with or in close proximity to the open trailing end thereof. The recess is so shaped and dimensioned as to preclude contact between the front edge of the shuttle with the weft gripping jaws of a similar shuttle when the front and rear ends of the shuttle contact each other in the same plane. Thus, in the event of a machine malfunction causing one shuttle to crash into the rear end of a preceding shuttle, the force of impact of one shuttle on another in this manner is

Navettes à pinces/320

Il s'agit d'une amélioration apportée au nez d'une navette à pinces. On pratique un creux, qui peut être une dépression concave, dans le bord arqué de la partie conique d'une navette tubulaire, comportant des pinces de trame en position affleurante ou à proximité de l'autre extrémité. La forme et les dimensions du creux interdisent tout contact entre la portion avant de la navette et les pinces de trame d'une autre, lorsque deux navettes situées dans le même plan se touchent. Dans le cas où il se produirait une collision due à un mauvais fonctionnement de la machine, la force de l'impact d'une navette sur la précédente serait donc portée par les deux corps et non pas répartie sur le corps d'une navette et les pinces de l'autre. Brevet américain numéro 4 295 498.

borne by the body portions of the shuttles rather than being borne by the body portion of one of the shuttles and the gripper clamp of another. U.S. Patent Number 4,295,498.

Relocatable Suspended Light Fixture/320

The fixture can assume multi-angle relationships to the ceiling grid system in a suspended ceiling system. The fixture is suspended from the ceiling by support posts which are movable relative to the ceiling grid system and the back of the light fixture to permit it to be moved to a number of different locations. U.S. Patent 4,109,305.

Phenolic Foam/320

A phenolic foam produced without the use of a conventional chlorofluorocarbon or hydrocarbon blowing agent is disclosed. The phenolic foam is produced as the reaction product of a mixture comprising of phenolic resole, a surfactant and stannous chloride. The phenolic foams can be formulated to contain a substantial proportion of closed cells. U.S. Patent Number 4,281,069.

Smoke-Suppressant & Fire-Retardant Poly(Vinyl Chloride) Compositions/320

The propensity of poly(vinyl chloride) homopolymer and poly(vinyl chloride) copolymer resin-containing compositions including poly(vinyl chloride) modified rubbers to smoke on exposure to fire is greatly diminished by the addition of effective amounts of ferric oxide. Amounts in excess of about 5%, based on the weight of the poly(vinyl chloride) resin or poly(vinyl chloride) modified resin or rubber, act as an effective smoke suppressant. Additionally, the combination of ferric oxide with hydrated metallic compounds results in poly (vinyl chloride) homopolymer and copolymer-containing compositions having both low smoke and low flame spread characteristics. U.S. Patent Number 3,993,607.

Radiation-Curable, Non-Crystallizing Acrylated Polyesters/320

A family of radiation-curable, non-crystallizing acrylated polyester resins is described in which the polyesters are formed by reacting a mixture of 100 mol percent dicarboxylic acids of which 50 to 100 mol percent is isophthalic acid; 0 to 25 mol percent is terephthalic acid; and 0 to 50 mol percent is one or more dicarboxylic acids other than isophthalic or terephthalic; with an excess of two or more primary glycols, the maximum mol percent of any one glycol being dependent on the amount of isophthalic acid. U.S. Patent Number 4,304,879.

Method of Making a Smooth, Dimensionally Stable, Mica-Filled, Glass Fiber Sheet/320

A Mica-filled glass fiber sheet which is smooth, of relatively low porosity, and dimensionally stable is described as is its method of manufacture. The sheet is prepared from a

Fixation mobile pour plafonnier/320

Il s'agit d'une fixation pouvant être placée à différents angles par rapport à la grille d'un plafond suspendu. L'arrière de la fixation est rattaché au plafond grâce à des piliers qu'on peut déplacer par rapport à la grille suivant un grand nombre de points. Brevet américain numéro 4 109 305.

Mousse phénolie/320

Il s'agit d'une méthode pour produire une mousse phénolique sans employer les gonflants classiques à base de chlorofluorocarbone ou d'hydrocarbure. La mousse phénolique résulte de la réaction d'un mélange de résine phénolique, d'un agent tensio-actif et de chlorure stanneux. Les mousses phénoliques peuvent être préparées de façon à contenir une proportion importante de cellules fermées. Brevet américain numéro 4 281 069.

Préparations anti-fumée et ignifuges à base de poly(chlorure de vinyle)/320

On peut diminuer de beaucoup la propension à produire de la fumée en présence de feu des préparations contenant un homopolymère de poly(chlorure de vinyle) ou un copolymère de poly(chlorure de vinyle), comprenant des caoutchoucs modifiés de poly(chlorure de vinyle), en ajoutant des quantités suffisantes d'oxyde ferrique. En proportion supérieure à 5% de la masse de la résine de poly(chlorure de vinyle) ou de la résine ou du caoutchouc modifié de poly(chlorure de vinyle), l'oxyde ferrique dernier joue efficacement le rôle d'agent antifumée. En outre, la combinaison d'oxyde ferrique et de composés métalliques hydratés confère des propriétés anti-fumée et ignifuges aux préparations contenant l'homopolymère et le copolymère de poly(chlorure de vinyle). Brevet américain numéro 3 993 607.

Polyesters d'acrylate incristallisable et durcissables sous l'effet des radiations/320

On décrit une famille de résines de polyesters d'acrylate incristallisables et durcissables sous l'effet des radiations. On produit ces polyesters en faisant réagir un mélange contenant 100 moles % d'acides dicarboxyliques, soit 50 à 100 moles % d'acides isophtatique, 0 à 25 moles % d'acide téréphtalique et 0 à 50 moles % d'au moins un acide dicarboxylique, autre que l'acide isophtalique ou téréphtalique, avec au moins deux glycols primaires en excès, le nombre maximal de moles % pour chaque glycol dépendant de la quantité d'acide isophtalique présent. Brevet américain numéro 4 304 879.

Méthode de fabrication de feuilles en fibres de verre lisses dimensionnellement stables, contenant du mica/320

On décrit la méthode de fabrication d'une feuille en fibres de verre contenant du mica, lisse, dimensionnellement stable, d'une porosité relativement faible. La feuille est prépa-

low-consistency aqueous slurry wherein the solids consist essentially of glass fibers, organic fibers, Mica, and binder. Based on 100 parts by weight glass fibers, 3 to 15 parts by weight organic fibers, 30 to 100 parts by weight Mica flakes, and 5 to 20 parts by weight organic binder are added to the water in preparing the furnish. In forming the sheet, this slurry or furnish is deposited onto a moving screen, the excess water is removed, and the wet laid sheet is dried and the binder set. In a subsequent operation, the sheet is saturated with a resin solution or latex. U.S. Patent Number 4,247,364.

Process for Forming Friction Materials/320

An improved process for forming a friction material having metal fibers evenly dispersed in the body of the material. The raw materials for production of the friction material are dispersed in an aqueous slurry. The slurry is formed into a sheet. This sheet is subsequently cured and cut to form brake pads and related friction materials.f U.S. Patent Number 4,279,696.

The following are polymeric materials which have chain or backbone structures composed of alternating phosphorus and nitrogen atoms. To the phosphorus atoms are attached a variety of organic groups, chosen to impart desired properties. Because the backbone of the structure is inorganic, these polymers are characterized by much lower smoke generation and flame spread than typical of conventional polymers. Although these polymers are not inexpensive, they may be useful in critical situations where their properties are uniquely suitable.

Catalytic Process for the Preparation of Phosphazene Polymers/320
U.S. Patent Number 4,110,421.

Curable Aryloxyphosphazene Polymers/320
U.S. Patent Number 4,113,670.

Polyphosphazene Plasticized Resins/320
U.S. Patent Number 4,124,557.

Catalytic Process for the Preparation of Phosphazene Polymers — Division of 4,110,421/320
U.S. Patent Number 4,124,567.

Molecular Weight Modification of Polyphosphazenes/320
U.S. Patent Number 4,136,084.

Heat Resistant Curable Surface Coating Composition Comprising the Reaction Product of an Unsaturated Polyaryloxyphosphazene and an Unsaturated Aryloxycyclotriphosphazene/320
U.S. Patent Number 4,145,479.

Catalytic Process for the Preparation of Phosphazene Polymers — Division of 4,110,421/320
U.S. Patent Number 4,157,425.

rée à partir d'une bouillie aqueuse, peu consistante, contenant essentiellement comme solides des fibres de verre, des fibres organiques, du mica et un liant. Pour préparer le mélange nécessaire, on ajoute à l'eau 100 parties en masse de fibres de verre, 3 à 15 parties en masse de fibres organiques, 30 à 100 parties de masse de flocons de mica et 5 à 20 parties en masse de liant organique. Pour former la feuille, on dépose cette bouillie sur un treillis mobile et on enlève l'excès d'eau. La couche sèche puis le liant prend. Par la suite, on sature la feuille avec une solution de résine ou un latex. Brevet américain numéro 4 247 364.

Procédé de fabrication d'un matériau devant résister au frottement/320

Il s'agit d'un procédé amélioré permettant de fabriquer un matériau résistant au frottement contenant des fibres de métal uniformément dispersées. Les matières de base sont dispersées dans une bouillie aqueuse, puis on donne à cette bouillie la forme d'une feuille, avant de la faire durcir et de la tailler en garnitures pour freins et autres pièces devant résister au frottement. Brevet américain numéro 4 279 696.

Les produits suivants sont des polymères dont les chaînes latérales ou la chaîne principale contiennent en alternance des atomes de phosphore et d'azote. Divers groupements organiques, choisis en fonction des propriétés qu'il confèrent à la molécule, sont fixés aux atomes de phosphore. Comme la chaîne principale est inorganique, ces polymères se caractérisent par des propriétés anti-fumée et ignifuge de beaucoup supérieures à celles des polymères classiques. Malgré leur coût assez élevé, ils peuvent s'avérer utiles dans des situations critiques où leurs propriétés sont indispensables.

Procédé de préparation catalytique de polyphosphazène/310
Brevet américain numéro 4 110 421.

Polymères durcissables d'aryloxyphosphazène/320
Brevet américain numéro 4 113 670.

Résines plastifiées de polyphosphazènes/320
Brevet américain numéro 4 124 557.

Procédé de préparation catalytique de polyphosphazène — Section de 4 110 421/320

Brevet américain numéro 4 124 567.

Modification de la masse moléculaire des phosphazènes/320
Brevet américain numéro 4 136 084.

Préparation pour revêtement résistant à la chaleur, durcissable, contenant le produit de réaction d'un polyaryloxyphosphazène non saturé et d'un aryloxycyclotriphosphazène non saturé/320
Brevet américain numéro 4 145 479.

Procédé de préparation catalytique de polyphosphazène — Section de 4 110 421/320

Brevet américain numéro 4 157 425.

Licensing Opportunities Through The University of Virginia Alumni Patents Foundation, U.S.

The following patented technologies are available for commercialization under licensing arrangements. Interested Canadian manufacturers wishing to ascertain the stage of development, terms of the agreement, marketing rights and assistance available, should write to: Mr. Ralph D. Pinto, Executive Director, The University of Virginia Alumni Patents Foundation, Towers Office Building, Suite 6-200, 1224 West Main Street, Charlottesville, Virginia 22903 and send a copy of your initial correspondence to Ms. Carol Klein, Commercial Officer, Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, PA 19102.

ELECTRICAL

Voltage Monitor/320

It is a solid state voltage monitor for protection of a computer or any sensitive electronic device. Quote: AC01 - Cole/Dichens/Landers.

Chemical Storage of Solar Energy/320

An advanced system for chemical storage of solar energy utilizing photogalvanic cells for solar energy conversion. Quote: BD01 - B. Degraff/Demas.

Reusable Radiation Capsule/320

An irradiation capsule and holder has been designed which allows precise determination and control of the neutron flex and specimene temperature during irradiation. Quote: CB01 - C. Bly/Kelly/Shriver.

Resolving X-Y Plotter/320

An apparatus designed to provide a means for an observer to directly effect the motion parameters of a revolving stimulus as the event is viewed. Quote: DP01 - D. Proffitt.

Improved Electrical Brushes/320

A new type of electrical brush and its method of manufacture has been developed and tested against standard brushes. These new brushes show significant improvement in electrical and mechanical losses, and are capable of extremely high current density for use in large motors and generators. Quote: DW02 - Wilsdorf, D. & H.

Possibilités d'acquisition de licences par l'intermédiaire de la "University of Virginia Alumni Patents Foundation", É.-U.

Les techniques brevetées qui suivent peuvent être commercialisées en vertu d'ententes en matière de licences. Les fabricants canadiens intéressés à connaître le niveau de mise au point, les dispositions de l'entente, les droits de commercialisation et l'aide qui leur est offerte devraient s'adresser à: M. Ralph D. Pinto, Directeur exécutif, The University of Virginia Alumni Patents Foundation, Towers Office Building, Suite 6-200, 1224 West Main Street, Charlottesville (Virginie) 22903 et faire parvenir une copie de votre correspondance initiale à Mad. Carol Klein, délégué commercial, Consulat général du Canada, 3 Parkway Building, Suite 1310, Philadelphie (Pennsylvanie) 19102.

ÉLECTRICITÉ

Moniteur de tension/320

Moniteur de tension à semiconducteurs servant à la protection d'un ordinateur ou de tout autre dispositif électronique délicat. Référence: AC01 - Cole/Dichens/Landers.

Stockage chimique de l'énergie solaire/320

Système perfectionné de stockage de l'énergie solaire comprenant des cellules photogalvaniques pour la conversion de l'énergie. Référence: BD01 - B. Degraff/Demas.

Capsule d'irradiation réutilisable/320

On a conçu une capsule d'irradiation avec support qui permet de déterminer et de régler avec précision le flux de neutrons et la température de l'échantillon pendant l'irradiation. Référence: CB01 - C. Bly/Kelly/Shriver.

Traceur X-Y résolveur/320

Appareil permettant à l'observateur de modifier directement en cours d'observation les paramètres du mouvement d'un système tournant. Référence: DP01 - D. Proffitt.

Balais électriques améliorés/320

Un nouveau type de balai électrique et sa méthode de fabrication ont été mis au point et comparés aux balais courants. Ces nouveaux balais ont démontré une diminution sensible des pertes mécaniques et électriques et peuvent supporter une forte densité de courant dans les moteurs et les génératrices. Référence: DW02 - Wilsdorf, D. & H.

Composite Polymer-Metal Systems/320

Disclosed are new composite polymer metal systems useful in providing nonlinear electrical characteristics for such items as switching devices, frequency multipliers and capacitors with high dielectric constants. Quote: EB04 - R.E. Barker.

3-Iodopindolol and (^{125}I)-3 Iodopindolol/320

This invention relates to a pure (-) stereoisomer, high specific activity radio-ligand, which should be useful in the study and measurement of cellular B-adrenergic receptors. Quote: GB04 - G. Brooker.

Rapid Polarizing Alternating Disinfection System/320

This invention reduces the non-productive period during electroanalysis at times of current reversal, utilizing a minimum amount of electrical energy and causing minimal wear of the electrodes. Quote: GC01 - G. Cahen, et al.

Heavy Metal Fiber for Reduction of Radiation/320

A heavy metal foil and support which can be easily placed in the filter slot of a beam limiting device. This foil provides passage of a window of radiation which is in the area of greatest quantum detection efficiency of existing radiological screens. Quote: GH01 - G. Hartwell.

Electrolysis Electrodes/320

These electrodes have improved mechanical properties: the anodes are formed in such a way that they exhibit very little anestrophy. The electrode has low power requirements and is effective for anodic, cathodic and AC electrochemical process. It is non-porous and inert to water and common organic solvents such as the simple alcohols. Quote: GS09 - Stoner/Cahen/Gilcadi.

Superconducting Detector for Low Energy Atoms and Molecules/320

Device which allows the detection of single, neutral, or charged particles. Quote: JH01 - J.H. Hoyle/Humphries/Boring.

Oscillator to Enhance Efficiency of Heat Exchange/320

This device enhances the capability of air to remove heat generated by an oil or gas fired furnace, increasing the efficiency of the heat exchange system. Quote: JL01 - J. Lee.

Système polymère-métal/320

Nouveaux systèmes polymère-métal assurant des caractéristiques électriques non linéaires pour, par exemple, des dispositifs de commutation, des multiplicateurs de fréquences et des condensateurs à constante diélectrique élevée. Référence: EB04 - R.E. Barker.

3-Iodopindolol et (^{125}I)-3 iodopindolol/320

Cette invention concerne un stéréoisomère (-) pur et un radio-ligand à activité très spécifique permettant d'étudier et de mesurer des récepteurs cellulaires ß-adrénergiques. Référence: GB04 - G. Brooker.

Système de désinfection alternatif à polarisation rapide/320

Ce nouveau système raccourcit la période non productive d'électro-analyse pendant l'inversion du courant; il consomme une quantité minimale d'énergie électrique et provoque une usure minimale des électrodes. Référence: GC01 - G. Cahen et coll.

Feuille de métal lourd pour la réduction des rayonnements/320

Une feuille de métal lourd avec support qui peut être facilement placée dans la fente du filtre d'un limiteur de faisceau laisse passer une plage de rayonnements dans la gamme de rendement maximal (en détection) des écrans radiologiques existants. Référence: GH01 - G. Hartwell.

Électrodes pour électrolyse/320

Ces électrodes ont des propriétés mécaniques supérieures: les anodes sont formées de telle façon qu'elles présentent un très faible degré d'anisotropie. L'électrode consomme peu d'énergie et est efficace pour les procédés électrochimiques anodiques, cathodiques et en courant alternatif. Elle est non poreuse et ne réagit pas avec l'eau et les solvants organiques ordinaires comme les alcools simples. Référence: GS09 - Stoner/Cahen/Gilcadi.

Détecteur supraconducteur pour atomes et molécules à faible énergie/320

Dispositif qui permet la détection de particules uniques, neutres ou chargées. Référence: JH01 - J.H. Hoyle/Humphries/Boring.

Oscillateur favorisant l'échange de chaleur/320

Ce dispositif accroît la capacité de l'air à extraire la chaleur produite par une fournaise à mazout ou à gaz, augmentant ainsi le rendement du système d'échange de chaleur. Référence: JL01 - J. Lee.

Direct Optical Modulator for Integrated Optical Circuits/320

Technique for phase or amplitude modulating a coherent optical beam by an incoherent optical beam. The modulator will work on glass, polystyrene, or similar type waveguides. Quote: TB01 - T. Batchman.

Dual Discharge Ionization Source/320

An innovative dual discharge ionization source has been developed having a high ion-to neutral ratio, increased sensitivity, and a reduction of certain molecular species which reduces spectral interferences. The system is simple to construct, and will be particularly applicable to inorganic mass spectrometry. Quote: WH01 - W. Harrison/Bentz.

MISCALLANEOUS

UVA Center of Gravity Wheelchair/320

A designed wheelchair incorporating several characteristics, along with configuration advantages. Quote: CM01 - C. McLaurin.

Method for the Metallization of Organic and Inorganic Fibers/320

Apparatus for producing metallized fibers by chemical vapor deposition without requiring vacuum, and can be done at commercial speeds. Quote: HS01 - H.J. Schladitz.

Metallized Surface for Composite Food Container/320

This technology produces an inexpensive "decorative metal coating" that masks paper while creating a shiny and smooth surface that is virtually transparent to microwaves, allowing for convenient use in a microwave oven. Quote: LS01 - Louis Scribner.

Tri-modal Wheel/320

A controllable rolling device (wheel), capable of operating in three modes. Quote: TB01 - T. Bruning.

Lever Clutch for Wheelchair/320

The reversible roller clutch permits a lever propulsion system to propel a wheelchair in an easily maneuverable manner; quietly, and with moderate effort from the user. Quote: TB02 - T. Bruning.

Stowaway Wheelchair/320

Designed for use on board aircraft to convey handicapped passengers from airport seat to lavatory. The light weight and compact folded size of the wheelchair allows it to be easily stored in the passenger cabin. Quote: TB03 - T. Bruning.

Modulateur optique direct pour circuits optiques intégrés/320

Méthode de modulation de phase ou d'amplitude d'un faisceau optique cohérent en un faisceau optique non cohérent. Le modulateur peut fonctionner avec des guides d'ondes en verre, en polystyrène ou de type semblable. Référence: TB01 - T. Batchman.

Source ionique à double décharge/320

On a mis au point une nouvelle source ionique à double décharge présentant un rapport particules ionisées à particules neutres élevé, une sensibilité accrue et une réduction de certaines espèces moléculaires, ce qui a pour effet de réduire les interférences spectrales. Ce système est simple à construire et il pourra être appliqué particulièrement à la spectroscopie de masse inorganique. Référence: WH01 - W. Harrison/Bentz.

DIVERS

Chaise roulante à centre de gravité UVA/320

Chaise roulante présentant des caractéristiques et une conception intéressante. Référence: CM01 - C. McLaurin.

Méthode de métallisation de fibres organiques et inorganiques/320

Appareil produisant des fibres métallisées par dépôt chimique de vapeurs, sans besoin de vide, et pouvant se faire à des vitesses industrielles. Référence: HS01 - J.H. Schladitz.

Surface métallique pour récipients composites à aliments/320

Cette technique permet de produire un "revêtement métallique décoratif" peu coûteux qui cache le papier tout en créant une surface brillante et unie, pratiquement transparente aux micro-ondes et d'utilisation commode dans les fours micro-ondes. Référence: LS01 - Louis Scribner.

Roue à trois modes/320

Dispositif de roulement commandé fonctionnant en trois modes. Référence: TB01 - T. Bruning.

Embrayage pour chaise roulante/320

L'embrayage réversible à galet permet d'enclencher le dispositif d'entraînement à manivelle de la chaise. D'un emploi facile et silencieux, il permet à l'utilisateur de manoeuvrer avec un effort modéré. Référence: TB02 - T. Bruning.

Chaise roulante pliante/320

Cette chaise est destinée à véhiculer les passagers handicapés à bord des avions de leur siège aux toilettes. Légère et compacte une fois repliée, la chaise se range facilement dans la cabine des passagers. Référence: TB03 - T. Bruning.

Licensing Opportunities Through RCS Associates Inc., U.S.

American company offers the Canadian manufacturing and North American marketing rights under its patents for identification systems that have applications in many industries. Additional information may be obtained by quoting title and patent number from: Mr. James Constant, RCS Associates, Inc., 1603 Danbury Drive, Claremont, CA 91711 and sending a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, CA 90014-1377, U.S.A.

System for Identifying Objects Using Labels/320

Microwave Automatic Vehicle Identification (MAVI) System — Identifies Vehicles, Boxcars — Industrial and Materials Identification Systems. U.S. Patent Number 3,691,557.

Real Time Synthetic Radar/320

Real Time High Resolution Reconnaissance, Surveillance, and Ground Mapping. U.S. Patent Number 3,790,939.

Vector Velocity System/320

Microwave Wayside Radar Speed Measurement (WRSM) System — Beam Crossing Speed Measurements — Tangential Target Detection. U.S. Patent Number 3,798,644.

Synthetic Radiometer/320

High Resolution Optical Reconnaissance, Surveillance, and Ground Mapping — Optical Point-of-sales System — Industrial and Materials Identification Systems — Postal Mail and Stock Certificate Bar Code Systems. U.S. Patent Number 3,858,203.

Simple Radar/320

Simple Inexpensive Collision Avoidance (SICA) System — Intruder Detection — Electronic Surveillance — Proximity Warning — Object Detection. U.S. Patent Number 3,896,435.

Digital Matched Filter and Correlator/320

High speed real time signal processing — correlation detection. U.S. Patent Number 3,950,635.

Digital FFT Processor/320

High speed real time signal processing — FFT signal analysis. U.S. Patent Number 3,965,342.

Off Resonant Chaff System/320

Masking large targets viewed by low frequency radar. U.S. Patent Number 3,965,472.

High Capacity Integrator/320

Extremely high time-bandwidth product pulse integrator — pulse compression system — signal compression system. U.S. Patent Number 3,971,993.

Synthetic Information Transfer and Object Identification System/320

Reads labels — wide beam laser fixed scanner — optical point-of-sales system — industrial and materials identification system — postal mail and stock certificate bar code system. U.S. Patent Number 3,988,572.

Recursive Filter Implemented as Matched Clutter Filter/320

Detection, resolution and identification of signals in clutter — radar and communications systems signal filtering — impulse response, transfer function and coherence function computations. U.S. Patent Number 4,006,351.

Digital Convolver Matched Filter and Correlator/320

High speed real time signal processing — convolution, matched filtering and correlation detection. U.S. Patent Number 4,025,772.

Feedforward Filter/320

Advanced signal processor eliminates filter error — error control in filters for error detection, identification, bit synchronization — error correction — coding — pulse compression — error-free signal analysis. U.S. Patent Numbers 4,053,750 and 4,156,919.

Beam Focused Synthetic Aperture/320

Implemented using a spatial matched filter — real time high resolution reconnaissance, surveillance and ground mapping — automatic vehicle identification with labels — point-of-sale scanners — high resolution signal detection — medical scanning. U.S. Patent Number 4,067,009.

Digital Signal Time Scale Inverter/320

Implemented using RAM — real time signal processor. U.S. Patent Number 4,080,660.

Superconducting Energy System/320

High capacity small size and low cost energy storage for electric utilities, factories and vehicles — stores charges in potential wells in elements of a high voltage transmission line and moves charges by applying control voltages to potential wells. U.S. Patent Number 4,082,991.

Cryptographic System/320

Implemented using RAM for encrypting and decrypting signals with stream and block ciphers — high capacity high speed — computes any cipher including federal algorithm — data protection in computers and communications channels. U.S. Patent Number 4,107,458.

Sidelooking Radar and System for Identification/320

Uses doppler filters to AM modulate FM chirp signals and to detect targets — identifies objects with labels — high resolution synthetic aperture radar. U.S. Patent Number 4,117,481.

Synthetic Aperture Using Image Scanner/320

Implements shifting imager at rate of motion of objects — imager for reconnaissance, surveillance, ground mapping, high speed reading, medical scanning — label scanning. U.S. Patent Number 4,164,740.

Addressable Optical Computer and Filter/320

Computes impulse response, transfer function, coherence function, impulse coherence, product, division, cross correlation, cross power spectrum, complex conjugate, and convolution of two signals in real time — high speed parallel computing. U.S. Patent Number 4,187,000.

Recursive Filter/320

Implements direct form recursive filters — increases efficiency and accuracy — reduces filter noise, error and size — high performance accurate filtering. U.S. Patent Number 4,228,517.

Bibliography

Guide to the International Registration of Marks/320

Price: 20 Swiss francs, 1982 looseleaf edition by WIPO. A new publication on the Madrid Agreement concerning the international registration of marks which describes, in detail, the system for the international registration of marks (1967 Stockholm Act) and the text of the Regulations of June 21, 1974, amended on September 29, 1974 and November 24, 1981. Available in English or French from: World Intellectual Property Organization (WIPO), Publications Section, 34, chemin des Colombettes, 1211 Geneva 20, Switzerland.

Bibliographie

Guide pour l'enregistrement international des marques/320

Prix: 20 francs suisses. Édition 1982, à feuillets mobiles, publiés par l'OMPI. C'est une nouvelle publication sur l'arrangement de Madrid traitant de l'enregistrement international des marques et qui décrit, en détail, la façon d'enregistrer les marques internationalement (Acte de Stockholm, 1967) et contient le texte du règlement du 21 juin 1974, modifié et 29 septembre 1974 et le 24 novembre 1981. Disponible en français ou en anglais auprès de: l'Organisation mondiale de la propriété intellectuelle (OMPI), Section des publications, 34, chemin des Colombettes, 1211 Genève 20, Suisse.

Licensing of Incomplete or Unproven Technologies/320

Price: U.S. $200.00, 250 pp. This book by six authors introduces the basic concept and method of licensing practices employed by five veterans of many years experience in licensing in major Japanese enterprises. Discusses the fullest exploitation of unproven technologies; problems in its licensing and joint development agreements; licensing agreements classified by the stage of development, with cases, cautions and options; establishing the marketability at pilot test or bench scale test stages with examples of guarantee, licensing, grant back and grave change situation clauses. Includes samples of option, secrecy, tentative sales, joint research and development, and licensing agreements. Available from: Nihon Brain Corporation, Sankei Annex 901, 1-7-2 Otemachi, Chiyoda-ku, Tokyo, Japan. Please send cheque with order.

Special Report on Joint Research and Development in Japanese Industries/320

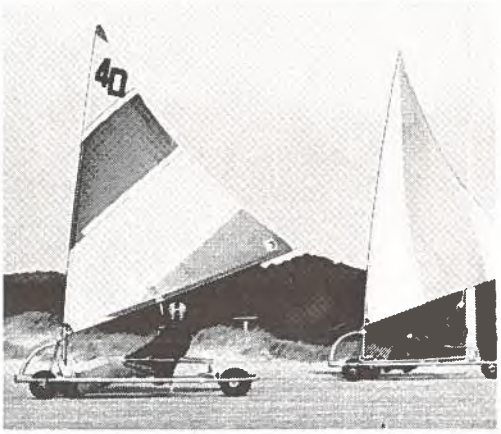
Price: U.S. $150.00, airmail, postage included, 160 pp., 1981. This report presents a detailed explanation on the basic approach and the practice of joint R&D programs compiled by five authors on their experience through their activities in leading Japanese industries, with actual examples of joint R&D agreements and practical comments. Discusses the necessity for complex R&D whether between industries of same or different fields; important factors in entering into joint R&D; and comments on ownership of results, utilization and length of agreement. Available from: Nihon Brain Corporation, Sankei Annex 901, 1-7-2 Otemachi, Chiyoda-ku, Tokyo, Japan. Please send cheque with order.

Successful Licensing To and From Japan/320

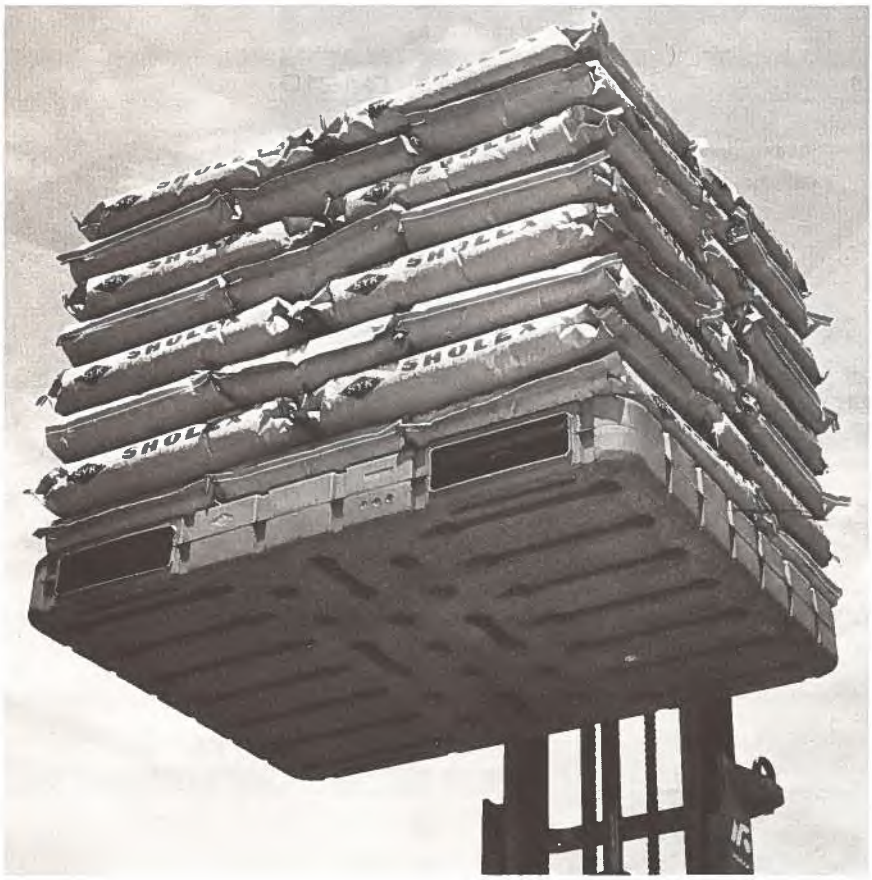
Price: U.S. $65.00, 220 pp., Revised Second Edition 1982 by Yoshio Matsunaga. Explains licensing from the Japanese viewpoint; discusses undeveloped know-how and the relationship between know-how and patent; theoretically and systematically defines the basic concepts and terminology of assistance agreements; presents the effect of the Anti-Monopoly Act on licensing; provides updated statistics and empirical data based on the author's 30 years of licensing experience. Available from: Nihon Brain Corporation, Sankei Annex 901, 1-7-2 Otemachi, Chiyoda-ku, Tokyo, Japan. Please send cheque with order.

Mobile Vacuum Cleaners (See page 5) ▲
Véhicules-aspirateurs (Voir page 5)

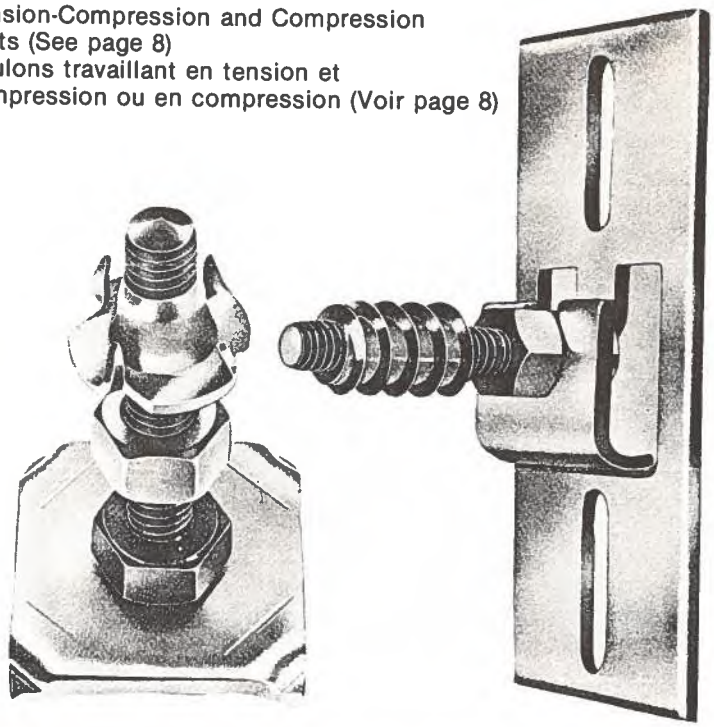
Plastic Pallets (See page 6) ▼
Palettes en matière plastique (Voir page 6)

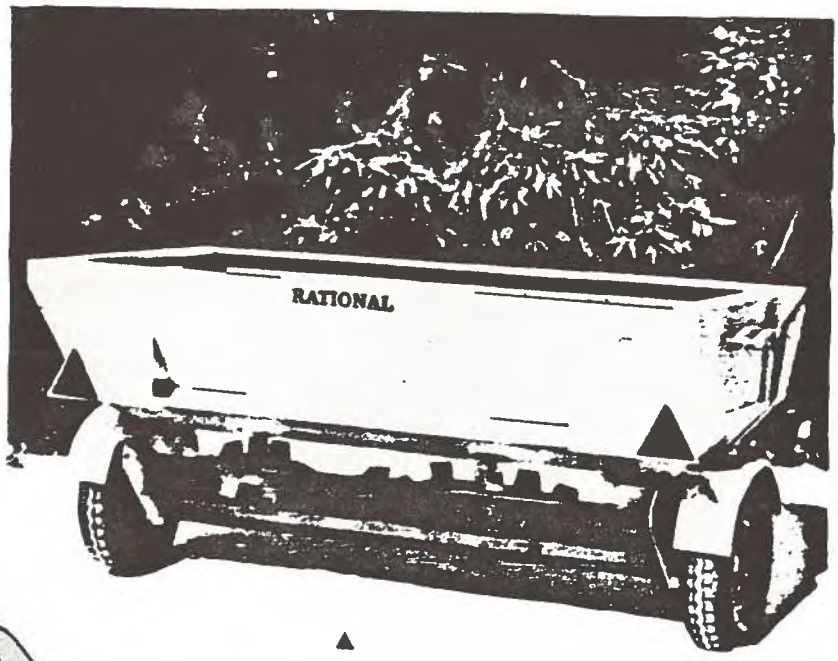


Catamaran-Type Vessels
(See page 7) ▲
Embarcations de type catamaran ▼
(Voir page 7)

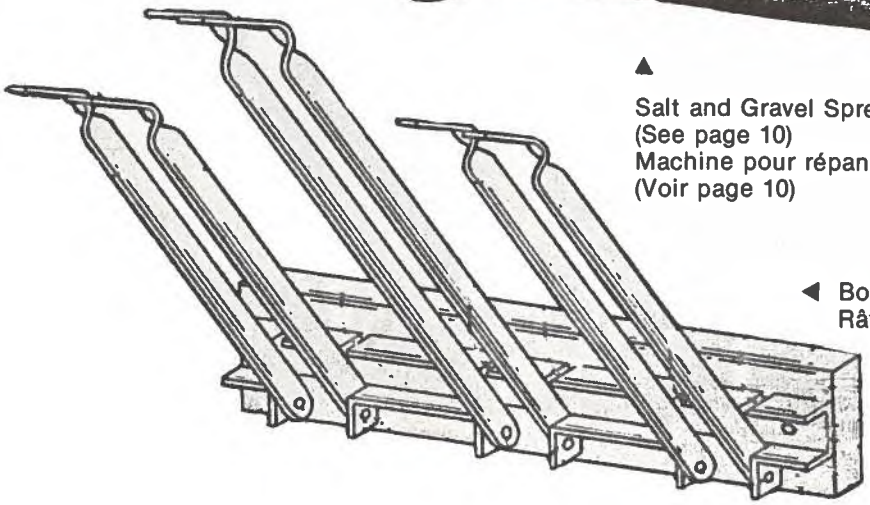


Tension-Compression and Compression Bolts (See page 8)
Boulons travaillant en tension et compression ou en compression (Voir page 8)
▶





▲ Salt and Gravel Spreading Machine (See page 10)
Machine pour répandre le sel et le gravier (Voir page 10)



◀ Boot Drying Rack (See page 10)
Râtelier de séchage des bottes (Voir page 10)

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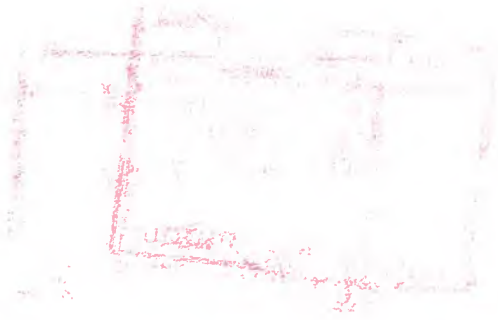

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