new products bulletin

bulletin de produits nouveaux

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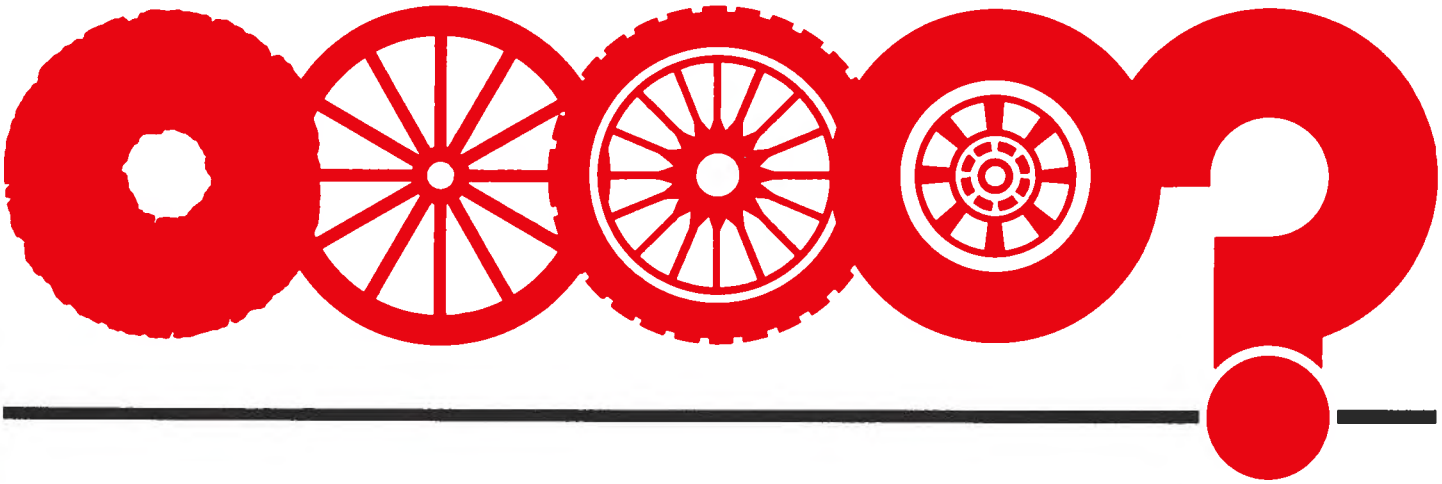

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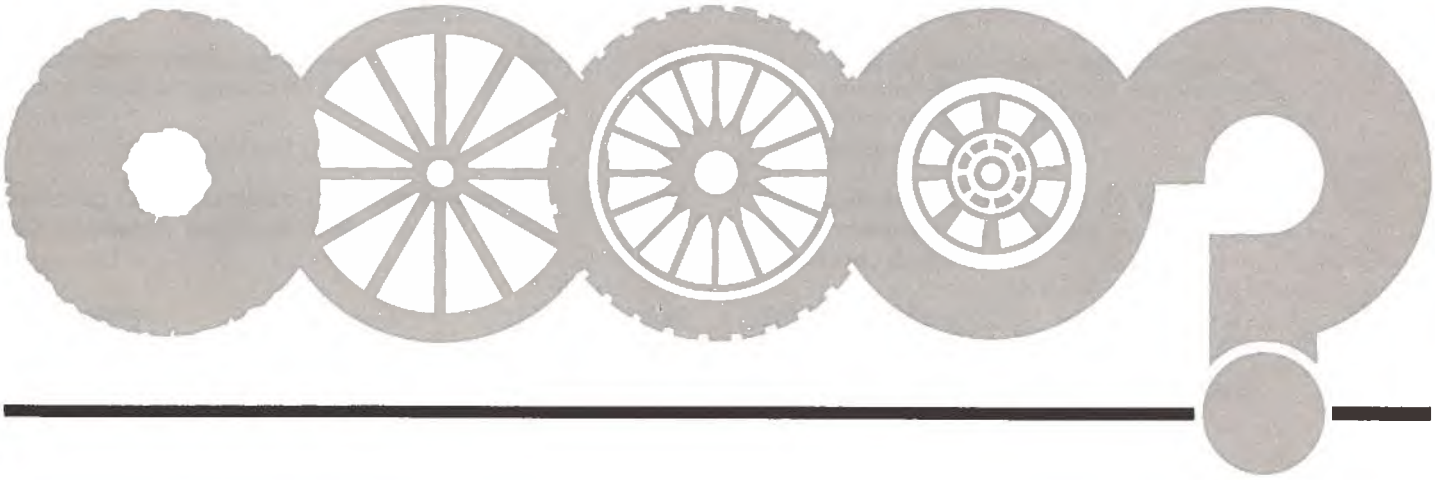
This monthly bulletin is published to inform Canadian industry of licensing and joint venture opportunities that may be investigated for the purpose of forming manufacturing affiliations. The Department cannot assume any responsibility for claims made or for transactions which ensue from the publication 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.



Selected Licensing or Joint Venture Manufacturing Opportunities

Wear Plate for Trunnion Block/324

The trunnion block, which in some weapons is an integral part of the receiver assembly, has to be replaced when its surface wear exceeds the permissible limits. Since trunnion blocks are often difficult to obtain, a wear plate is fitted to the surface providing a simple technique to salvage the trunnion block, thus eliminating the need to replace the entire receiver assembly. Write: **Case 7304**, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

A Dielectric Rod Feed for Reflector Antennas/324

It is an antenna feed structure which can be optimized over a broad frequency range, for high efficiency operation within a relatively large bandwidth. It provides all the desirable characteristics of a corrugated feed and its simple geometry makes it suitable for low cost earth terminal applications. Write: **Case 7455**, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Automatic Electronic Controls/324

Norwegian company offers manufacturing and negotiable marketing rights to a Canadian manufacturer for a home controller, which offers great flexibility in centralized control of, and interaction between, home systems. These include intrusion alarms, fire/smoke detectors, heating and cooling, water leakage, light controls, ventilation and automatic telephone calls. Some features are: zoning of the house for maximum heating efficiency; weekend or other special programming; vacation programming; coded access to programming. A larger version is available for offices and small industries. Other chief advantages are: low cost production, substantial energy savings, potential for a wide range of products designed around the main product and its aesthetic appearance. Assistance available includes: technical know-how (drawings, etc.), marketing know-how, sales and advertising literature and promotional products. Patents, trade marks and designs are registered in several countries. Write: Midat Gruppen, Alkevegen 4, 9000 Tromsø, Norway and send a copy of your initial correspondence to Canadian Embassy, Postuttak, Oslo 1, Norway.

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

Plaque d'usure pour tourillons/324

Sur certaines armes l'ensemble des tourillons font partie intégrante de la boîte de culasse et doivent être remplacés quand l'usure de la surface dépasse les limites admissibles. Étant donné que ces ensembles sont souvent difficiles à obtenir on place une plaque d'usure sur la surface pour protéger l'ensemble de façon simple et éliminer la nécessité de remplacer toute la boîte de culasse. Écrire: **Cas 7304**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Ontario) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Réseau d'alimentation en cierge pour antennes à réflecteur/324

Il s'agit d'un réseau d'alimentation d'antenne qui peut être optimisé sur un vaste champ de fréquences et présente une grande efficacité de fonctionnement sur une largeur de bande relativement étendue. Ce réseau possède toutes les caractéristiques souhaitables du réseau d'alimentation à surface ondulée, et la simplicité de sa structure permet son emploi pour des applications de stations terriennes peu coûteuses. Écrire: **Cas 7455**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Ontario) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Régulateurs électroniques multifonctions/324

Une compagnie norvégienne désire céder à un fabricant canadien les droits de fabrication et de commercialisation d'un régulateur multifonction qui permet la régulation centralisée des installations résidentielles. Ce régulateur se caractérise par sa grande souplesse et permet de régler l'interaction entre les diverses installations. Il surveille ainsi les systèmes d'alarme d'intrusion, les détecteurs d'incendie et de fumée, les installations de chauffage et de refroidissement et les détecteurs de fuites d'eau; il commande l'éclairage ainsi que la ventilation et permet la composition automatique de numéros de téléphone. Parmi les fonctions de ce régulateur: zonage de la maison pour un rendement optimal de l'installation de chauffage; programmation spéciale pour la fin de semaine ou autre; programmation pour les vacances; protection du programme par mot de passe. Un modèle plus grand existe pour les bureaux et les petites entreprises. Autres avantages importants: faible coût de production, économie considérable d'énergie, adaptabilité à toute une gamme d'accessoires et aspect esthétique. L'aide offerte par la compagnie comprend le savoir-faire technique (schémas, plans, etc.), la compétence en commercialisation,

la documentation pour l'utilisateur, des brochures publicitaires et des produits de promotion des ventes. Des brevets, des marques de commerce et des conceptions ont déjà été enregistrés en plusieurs pays. Écrire à: Midat Gruppen, Alkevegen 4, 9000 Tromsø (Norvège) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, Postuttak, Oslo 1 (Norvège).

"GN" Freewheels and Backstop Assemblies/324

French manufacturer offers the Canadian manufacturing and marketing rights in Canada and the U.S.A. for its mechanical precision freewheels used in handling equipment, ventilation, paper, agricultural and food processing equipment, special machines, etc. The firm will supply the one tenth of the weight of these wheels which are made of special parts at French market price, as well as instructions necessary to manufacture other parts, to obtain commercial parts and to assemble the wheels. "GN" Roller Freewheels and Backstop Assemblies are similar to a cylindrical roller bearing in which a certain number of rollers have been replaced by specially shaped rollers made of hardened steel (HRC ± 61). This patented shape has been designed so that when rotating in one direction, the grip roller takes a position that does not interfere with the movement of the freewheel and the assembly acts as a roller bearing. When rotating in the opposite direction, the grip roller is oriented so that its diameter becomes larger than the distance between the two races. this causes radial locking, which prevents all relative displacement of the two parts. The rotation of the rollers is limited and stoppage is instantaneous. They last for a long time because the rollers do not rest on the race, and when they are in a stop position they do not come in contact with the same raceway. Furthermore, when used under abnormal conditions (for example, shocks, high speeds, the presence of abrasive particles in the air, etc.), a simple change of rollers will return the freewheels and backstop assemblies to mint condition. The direction of lock can be reversed by inverting the rollers, but the fixation has been designed so that it is possible to achieve this by simply inverting the whole wheel. The driving (or retaining) torque of these wheels is proportional to the length and number of the rollers. They are similar to roller bearings and it is not necessary to use additional bearings so that, for a given torque, they take up very little space. The firm will supply, on demand, wheels with an h6 justified external race which includes a keyway allowing it to be mounted directly inside sprocket wheels, pulleys, etc. (See illustration page 39.) Write: Ets. Nicot SA, 60, rue Boursault, 75017 Paris, France and send a copy of your initial correspondence to Canadian Embassy, 35 Avenue Montaigne, 75008 Paris, France.

Roues libres et antidériveurs à galets "GN"/324

Un fabricant français offre à une entreprise canadienne les droits de construction et de commercialisation pour le Canada et les États-Unis de ses roues libres mécaniques de précision qui sont utilisées dans les industries de ventilation, papeteries, matériel agroalimentaire, machines spéciales, etc. La firme française fournira 1/10^{e} (en poids) des pièces spéciales des roues, au prix du marché français, ainsi que toutes les indications nécessaires pour exécuter les autres pièces, approvisionner les pièces du commerce et monter les roues libres. Les roues libres et antidériveurs à galets "GN" se présentent sous l'aspect de roulements à rouleaux cylindriques dans lesquels un certain nombre de rouleaux serait remplacé par un galet en acier traité — dureté (61 ± HRC). Cette forme brevetée a été étudiée pour que, dans un sens de rotation, le galet prenne une position telle qu'il ne s'oppose pas au mouvement de la roue libre et que l'ensemble devienne en quelque sorte un roulement à rouleaux cylindriques. Dans le sens de rotation inverse, le galet s'oriente de manière à présenter un accroissement diamétral supérieur à la distance entre les deux chemins de roulement. Ceci provoque un verrouillage radial qui interdit tout déplacement relatif des deux parties. Le basculement des galets est limité, et le blocage, instantané. Les roues libres et les antidériveurs à galets "GN" ont une très longue durée de fonctionnement car les galets n'appuient pas sur les chemins de rouleaux et, en position de blocage, ils n'entrent pas en contact avec la même génératrice de ces chemins de roulement. De plus, soumis à des conditions anormales de travail (par exemple: chocs, vitesses très élevées, milieu chargé de particules abrasives. . .) il suffit de changer les rouleaux pour remettre roues libres et antidériveurs à l'état neuf. Le sens de blocage peut s'inverser en retournant les galets mais la fixation a été prévue pour qu'il soit possible de le faire en retournant simplement la roue. Le couple d'entraînement (ou de retenue) de ces roues est proportionnel à la longueur et au nombre de galets. L'ensemble s'apparente à des roulements à rouleaux et il n'est pas nécessaire d'adjoindre des roulements supplémentaires, ce qui lui donne, pour un couple fixé, un encombrement particulièrement réduit. La firme, sur demande, peut livrer des roues avec cylindre extérieur rectifié h6, comportant une rainure de clavetage qui permet le montage direct à l'intérieur des roues dentées, poulies, etc. . . (Voir l'illustration page 39.) Écrire à: Ets. Nicot SA, 60, rue Boursault, 75017 Paris (France) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, 35, avenue Montaigne, 75008 Paris (France).

Tracer Tape/324

Austrian manufacturer offers a Canadian company know-how and equipment to manufacture a tracer tape made of a stainless steel metal band backed by a flexible plastic. It is laid underground 2.5 cm to 5 cm above non-metallic

Ruban de repérage/324

Un fabricant autrichien offre à une entreprise canadienne le savoir-faire et le matériel nécessaires à la fabrication d'un ruban de repérage composé d'une bande métallique supportée par un plastique souple. Le ruban est posé sous terre

(cement, asbestos, concrete, stone, plastic, metal pipes with plastic sleeves) gas or water pipes or underground cable to indicate where the pipe or cable is laid. The tape can be detected by electronic locating instruments even when it is torn in several places, will last indefinitely, is installed by attaching the ends to a valve, hydrant or water meter, is 40 mm wide and 250 meters long, can be joined and can be made available with various imprints. Write: SEBA MeBtechnik GmbH & Co. KG (Austria), Sonnengasse 13, A-9020 Klagenfurt, Austria and send a copy of your initial correspondence to Canadian Embassy, Luegerring 10, A-1010 Vienna, Austria.

de 2.5 à 5 cm au-dessus des conduites d'eau ou de gaz non métalliques (béton, amiante, ciment, pierre, plastique, métal avec manchons de plastique) ou au-dessus de câbles enfouis, afin d'en indiquer la position. Le ruban peut être détecté par des appareils de repérage électroniques même s'il est déchiré en plusieurs endroits, est pratiquement indestructible, s'installe en le reliant à une vanne, une bouche d'incendie ou un compteur d'eau, est vendu en longueurs de 250 mètres sur 40 mm de largeur, peut être raccordé et peut porter diverses indications. Écrire à: SEBA MeBtechnik GmbH & Co. KG (Autriche), Sonnengasse 13, A-9020 Klagenfurt (Autriche) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, Luegerring 10, A-1010 Vienne (Autriche).

Surface Aerator/324

Dutch company offers, for a lump sum or royalty base, the manufacturing licensing rights to a Canadian firm for its OXYRATOR®, a vertical axis surface aerator to be used in waste water treatment processes. The aerator mixes liquid and air with high efficiency and effects a considerable propulsion of the liquid mass by the same action. It can be used in oxydation ditches and rectangular tanks. The units offer high oxygenation efficiency, simple and sturdy design, little maintenance and simultaneous mixing and propulsion. Test report, trademark, design and application know-how, U.S. Patent 4,074,953, marketing rights in Canada and spot licenses for export are available. (See illustration page 39.) Write: DHV Consulting Engineers, P.O. Box 85, 3800 AB Amersfoort, The Netherlands and send a copy of your initial correspondence to Canadian Embassy, Sophialaan 7, The Hague, Netherlands.

Aérateur superficiel/324

Une compagnie hollandaise offre aux fabricants canadiens les droits de fabrication sous licence de son OXYRATOR[MD] qui est un aérateur superficiel à arbre vertical destiné à être utilisé pour le traitement des eaux usées. Ces droits seront accordés en échange d'une somme globale ou de redevances. L'aérateur mélange l'air aux liquides de façon très efficace tout en déplaçant considérablement la masse liquide. On peut l'utiliser dans les bassins d'oxydation et dans les réservoirs de forme rectangulaire. L'aérateur assure une oxygénation efficace, est de conception simple et robuste, ne requiert que peu d'entretien et permet d'aérer et de brasser simultanément le liquide. On peut se procurer les rapports d'essais, la marque de commerce, les données sur la conception et l'utilisation, le brevet É.-U. 4 074 953, les droits de commercialisation au Canada et les licences nécessaires sur place pour l'exportation. (Voir l'illustration page 39.) Écrire à: DHV Consulting Engineers, P.O. Box 85, 3800 AB Amersfoort (Pays-Bas) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, Sophialaan 7, La Haye (Pays-Bas).

Waste Water Treatment/324

German company offers licensing rights to a Canadian manufacturer preferably operating in the field of manufacture and sale of industrial plants, for its Biolak system which is biological waste water cleaning by lengthy treatment in large volume biological sludge plants using aeration chains. The process is suitable for communal as well as industrial waste water. The main advantage of this process, which has already proved itself in almost 100 plants, is its ability to combine traditional activated sludge treatment plants with the design of large volume earth basins. This is made possible by special floating aeration equipment. Treatment plants are created by this combination and on one hand keep up with robust and reliable plants operating at maximum capacity and on the other hand, are more favourable than traditional treatment plants as far as investment costs are concerned. The process is patented in the U.S.A. and several other countries. Write: Dr. Ing. R. von Nordenskjöld, 8011 Hohenbrunn, Ernst Heinkel Ring, West Germany and send a copy of your initial correspondence to Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Traitement des eaux usées/324

Une firme allemande offre les droits de licence de son procédé Biolak à une firme canadienne oeuvrant de préférence dans le domaine de la construction industrielle. Il s'agit d'un procédé d'épuration biologique des eaux usées faisant appel à un traitement prolongé dans des installations de grande capacité pour le traitement biologique des boues au moyen d'une chaîne d'aérateurs. Ce procédé s'applique aussi bien aux eaux usées industrielles que domestiques. Le principal avantage de ce procédé, qui a déjà fait ses preuves dans une centaine d'usines, est qu'il permet d'incorporer à une usine de traitement de boues activées classique des bassins excavés de grande capacité, grâce à un dispositif d'aération spécial qui flotte. Cette combinaison permet de créer des usines de traitement qui, d'une part sont capables de répondre aux besoins d'une usine dynamique et fonctionnant à pleine capacité de façon continue et qui, d'autre part, sont plus avantageuses que les usines classiques en termes d'investissements. Le procédé est breveté aux É.-U. et dans plusieurs autres pays. Écrire à: Dr. Ing. R. von Nordenskjöld, 8011 Hohenbrunn, Ernst Heinkel Ring (République fédérale d'Allemagne) et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada. Immermannstrasse 3, 4 Düsseldorf (République fédérale d'Allemagne).

Transport and Conveying Equipment/324

West German firm offers the Canadian manufacturing and domestic, as well as negotiable export marketing rights to its products (except for its four track machines). The products are: transport and conveying equipment for rail vehicles and track-bound transporting means for all kinds of industry-traversers for locomotives and wagons; turntables for locomotives and wagons; turntables for lorries and private cars; traction rope installations with all kinds of latching; automotive shunting vehicles; WINDHOFF Tele-Trac flap bridges for l.c.l. loading platforms; axle and bogie lifts for vehicle maintenance; heavy-duty transport cars with diesel and electrical drive; ingot transport cars; slab transport cars; scrap container cars; platform cars of all kinds, etc. Write: Mr. H.A. Albat, Windhoff AG, P.O. Box 1160, D-4440 Rheine 1, West Germany and send a copy of your initial correspondence to Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Installation de transport et de mécanutention/324

Une entreprise d'Allemagne de l'Ouest céderait les droits de fabrication et les droits de commercialisation de ses produits au Canada (à l'exception de ses quatre machines de travaux de voie). De plus, les droits de commercialisation pour l'exportation peuvent être acquis après négociation avec la compagnie. Ces produits comprenent: des installations de transport de mécanutention par matériel ferroviaire et tout autre moyen sur rails pour une grande variété d'industries, tels que transbordeurs et plaques tournantes pour locomotives et wagons; plaques tournantes pour camions et automobiles; installations de halage à traction par câble avec différents types de verrouillage; véhicules de triage autotractés WINDHOFF Tele-Trac, ponts de transbordement entre rampes de chargement partiel; vérins d'essieux et de bogies pour le service technique — entretien des véhicules; wagon de transports lourds à traction électrique ou diesel; wagons plats de transport de gueuses; wagons plats de transport de dalles; wagons porte-conteneurs de rebus; wagons plats tout type, etc. Écrire à: M. H.A. Albat, Windhoff AG, boîte postale 1160, D-4440 Rheine 1 (Allemagne de l'Ouest) et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, Immermannstrasse 3, 4 Duesseldorf (Allemagne de l'Ouest).

Heating Ceiling for Breeding Swine, Etc./324

Swedish patentee offers the exclusive manufacturing licensing rights for Canada and non-exclusive marketing rights for his developments in the breeding of suckling pigs. The invention provides a warm habitat, free from draft which consists of a framed plate 0.9 x 0.5 m covered on one side with reflecting aluminum foil and a temperature regulator fitted in a funnel at its centre. There is also a 15 W pilot lamp and a 100-125 W heating coil, controlled by the temperature regulator mounted close to the foil-covered side. The plate is arranged like a ceiling 0.35 m above the box floor. The piglets are attracted by the pilot light and gather beneath the ceiling that reflects most of their thermal radiation. The temperature regulator should be set at 27°C. At lower temperature the heating coil is switched on, thereby giving additional heat. Only some 30 percent of the pigs' heat requirement has to be supplied that way. At a box temperature of 18°C and a temperature beneath the heating ceiling of 38°C the draft has been reduced to 0.1 m/s. Patented in Canada, U.S.A. and several other countries. Write: Mr. Stig-Eric Smeds, Aldersbo, S-730 43 Ransta, Sweden and send a copy of your initial correspondence to Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm 16, Sweden.

Plafond chauffant pour l'élevage des porcins, etc./324

Un Suédois, détenteur d'un brevet, offre les droits de licence exclusifs au Canada ainsi que les droits de mise en marché sans exclusivité pour son invention applicable à l'élevage de porcs allaités. Ce dispositif, qui permet de garder les animaux au chaud et à l'abri des courants d'air, consiste en une feuille de métal encadrée de 0,9 x 0,5 m garnie sur une face d'une feuille d'aluminium réfléchissant et comportant au centre un espace cylindrique où est encastré un thermostat. Le dispositif comprend également une lampe pilote 15 W et un serpentin chauffant de 100-125 W commandé par le thermostat et monté près de la face couverte d'aluminium. La feuille de métal est disposée à la manière d'un plafond à 0,35 m au-dessus du plancher de la boîte. Les porcelets, attirés par la lampe pilote, s'assemblent sous le plafond qui réfléchit la plus grande partie de leurs rayons thermiques. Le thermostat doit être réglé à 27°C. Lorsque la température baisse, le serpentin chauffant est actionné et fournit la chaleur additionnelle. Avec ce dispositif, il n'est besoin de fournir qu'environ 30% de la chaleur nécessaire aux porcs. À une température de 18°C, dans la boîte, et de 38°C, sous le plafond chauffant, le courant d'air enregistré a été réduit à 0,1 m/s. Breveté au Canada, aux É.-U. et dans plusieurs autres pays. Écrire à: M. Stig-Eric Smeds, Aldersbo, S-730 43 Ransta (Suède) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, C.P. 16129, S-103 23 Stockholm 16 (Suède).

Laminated Timber Pillars or Poles/324

Swedish manufacturer offers a Canadian company the licensing rights to produce laminated timber pillars according to a new production technique. Current production is controlled by the National Swedish Institute for Materials Testing. The company is a member of the Swedish Glulam Control Board and the Nordic Laminated Timber Council.

Piliers et poteaux de bois lamellé-collé/324

Une société suédoise offre à une entreprise canadienne les droits de licence touchant la fabrication de piliers de bois lamellé-collé selon un nouveau procédé. La production est contrôlée par l'Institut suédois d'essai des matériaux, et la société est membre de l'Office suédois de contrôle du bois lamellé-collé et du Conseil nordique du bois d'oeuvre

Patents are currently pending on these hollow, duodecagonal pillars. (See illustration page 39.) Nya Värmlands Limtra AB, Box 66, S-680 50 Ekshärad, Sweden and send a copy of your initial correspondence to Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm 16, Sweden.

lamellé-collé. Les brevets pour ces piliers creux à douze pans sont en instance. (Voir l'illustration page 39.) Écrire à: Nya Värmlands Limtra AB, case postale 66, S-680 50 Ekshärad (Suède) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, C.P. 16129, S-103 23 Stockholm 16 (Suède).

Filter/324

American company with patented filter for heating, ventilating and air conditioning systems wishes to licence a HVAC manufacturer for the Canadian market. Export rights are negotiable. Filter is claimed to be highly efficient with capability to remove liquid and solid particles down to 0.1 micron size. It is also claimed to facilitate removal of bacteria in hospitals, and welding and oil smoke in industrial plants. Write: Thermal Retention Inc., 4120, W., Maple Road, Suite 102, Birmingham, Michigan 48010 and send a copy of your initial correspondence to Canadian Consulate General, 1920 First Federal Building, 1001 Woodward Avenue, Detroit, Michigan 48226-1966, U.S.A.

Filtre/324

Une société américaine qui produit un filtre breveté pour le chauffage, la ventilation et le conditionnement de l'air offre une licence à un fabricant pour le marché canadien. Les droits d'exportation sont négociables. Le filtre semble très efficace, pouvant retenir des particules solides et liquides d'une grosseur de 0.1 micron. Il semble par ailleurs que ce dispositif favorise l'élimination des bactéries dans les hôpitaux, ainsi que les fumées de soudure et d'huile dans les usines. Écrire à: Thermal Retention Inc., 4120, W., Maple Road, Suite 102, Birmingham (Michigan) 48010 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 1920 First Federal Building, 1001 Woodward Avenue, Detroit (Michigan) 48226-1966 (É.-U.).

Synthetic Products and Systems/324

Dutch firm offers the Canadian manufacturing and North American marketing rights to its plastics based on thermosetting synthetic resins developed specifically for the construction industry's problem areas. The most recent developments are in rooftop coatings whereby a highly elastic waterproof and preservative coating is painted or sprayed on roofs of concrete, cement/sand, asphalt and slate or metal roofs of aluminum or steel. The firm's other specialty products that are available for licensing have application in industrial and sports flooring, shipdecks, road surfacing, road building and viaducts, concrete repair mortars, corrosion protective and weatherproof coatings for buildings, ships' decks, structures and equipment. The licensor will provide all necessary production know-how (machinery and formulas), application know-how (machinery and system composition), and commercial know-how (trademark, cost price calculations, samples and brochures). (See illustration page 39.) Write: Bolidt Kunststoftoepassingen B.V., Postbus 55, 2950-AB Alblasserdam, The Netherlands and send a copy of your initial correspondence to Canadian Embassy, Sophialaan 7, The Hague, Netherlands.

Produits et ensembles de revêtements synthétiques/324

Une société hollandaise offre les droits de fabrication au Canada et de commercialisation en Amérique du Nord touchant ses produits de plastique à base de résines synthétiques thermodurcissables spécialement conçues pour répondre aux besoins du secteur de la construction. Au nombre des plus récentes nouveautés, on note les enduits de toitures réalisés par peinture ou pulvérisation d'une couche d'imperméabilisation et de protection très élastique sur les toits de béton, de ciment-sable, d'asphalte et d'ardoise, ou sur les toits métalliques en aluminium ou en acier. Les autres produits spéciaux offerts sous licence par la société sont destinés aux installations industrielles et sportives pour les planchers, les ponts de navires, les mortiers de réparation du béton, ainsi que les enduits anticorrosifs et imperméables pour immeubles, ponts de navires, ouvrages et matériel divers. Le donneur de licence fournira tout le savoir-faire nécessaire en ce qui a trait à la production (machinerie et formules), à la mise en oeuvre (machinerie et agencement des revêtements) et à la commercialisation (marque de commerce, calcul des prix de revient, échantillons et documentation). (Voir l'illustration page 39.) Écrire à: Bolidt Kunststoftoepassingen B.V., Postbus 55, 2950-AB Alblasserdam (Pays-Bas) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, Sophialaan 7, La Haye (Pays-Bas).

Rectifier Commutation in Electrical Machines/324

Canadian inventor offers for licensing a new method of design of electrical machines that use commutators eliminating sparking of the commutators and also allow the construction of AC-fed motors having the characteristics of DC motors, including the capability to return power to the AC line while being overdriven. A variation in the embodiment of the invention permits elimination of the mechanical com-

Utilisation de redresseurs dans les machines électriques/324

Un inventeur canadien offre les droits de licence de fabrication de nouvelles machines électriques à collecteur, qui élimine les étincelles au collecteur et permet la construction de moteurs à courant alternatif ayant les caractéristiques des moteurs à courant continu, y compris le retour du courant à la ligne d'alimentation en cas de surintensité. Une autre version de cette invention supprime complètement le

mutator itself while keeping the desirable characteristics of commutator machines. The invention eliminates the inconveniences of a DC motor caused by brush wear and prolongs its useful life, simplifying its maintenance and power supply requirements. The motor thus built would find its principal application in variable speed or variable torque drives. The field of applications of the new motor, with its characteristics of a DC motor without sparking, which can be AC line fed, would grow at the expense of induction motors, as well as other types of motors. Patents are pending in the U.S.A. and Canada. Write: Mr. Mykola Sereda, P.O. Box 358, Station "K", Montreal, Quebec H1N 3L3 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.

collecteur mécanique tout en conservant les caractéristiques souhaitables des machines à collecteur. De plus, l'invention élimine les inconvénients des moteurs c.c. qu'entraîne l'usure des balais, prolonge la durée de vie des moteurs et simplifie leur entretien ainsi que les exigences d'alimentation. Le nouveau moteur conviendrait en particulier aux entraînements à vitesse réglable ou à couple variable. La popularité de cette machine c.a. aux caractéristiques d'un moteur c.c. sans étincelles augmenterait aux dépens des moteurs à induction et d'autres types de moteurs. Des brevets sont en instance d'acceptation aux États-Unis et au Canada. Écrire à: M. Mykola Sereda, B.P. 358, Succursale K, Montréal (Québec) H1N 3L3 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.

Apparatus for Pneumatically Applying Material to an Object/324

American inventor offers the manufacturing and marketing rights under his U.S. and Canadian patents for apparatus to seal cracks and spalled areas in the refractory brick lining of hot coke ovens and other objects. Rather than trowel or spray on material or a liquid coating, the present invention provides apparatus for pneumatically applying material to an object, said apparatus being adapted to be connected to a source of compressed air, said apparatus comprising: a main conduit having an open first end arranged to be supplied with a flow of compressed air from said source, and having an open second end through which material is to be discharged; a supply conduit having an open first end communicating with said main conduit and having an open second end; a tubular casing having a first end connected to said supply conduit second end and having a second end; a tubular wall arranged within said casing and having open first and second ends and adapted to contain a quantity of said material therewithin, said wall first end being in communication with said main conduit through said supply conduit; a piston operatively arranged within said tubular wall for sliding movement therealong, said piston having a first face arranged to act on material within said tubular wall and having an opposite second face; a pressurizing conduit connected to said casing second end and communicating said wall second end with said source and selectively operable to apply pneumatic pressure to said piston second face to displace said piston along said tubular wall and to cause extruded material to enter said main conduit; and a diffuser mounted on said casing between said pressurizing conduit and piston and operable to diffuse a flow of compressed air delivered therethrough; whereby extruded material entering said main conduit may be propelled therealong by said flow of compressed air therethrough, and may be discharged through said main conduit second end. Write: Mr. John DeNardo, P.O. Box 1893, Highland, Indiana 46322 and send a copy of your initial correspondence to Canadian Consulate General, 1920 First Federal Building, 1001 Woodward Avenue, Detroit, Michigan 48226-1966, U.S.A.

Dispositif pour l'application par voie pneumatique d'un enduit sur un objet/324

Un inventeur américain offre les droits de fabrication et de commercialisation sous ses brevets canadien et américain d'un appareil permettant d'obturer les fissures et les endroits éclatés dans les chemisages de briques réfractaires des fours à coke à vent chaud et d'autres appareils. Plutôt que d'appliquer l'enduit à la truelle ou par pulvérisation en liquide, on peut utiliser la présente invention pour appliquer un matériau par voie pneumatique. L'appareil est conçu pour être raccordé à une source d'alimentation en air comprimé et comprend: un conduit principal ayant une première extrémité ouverte et conçu pour être alimenté par la source d'air comprimé, et comportant une seconde extrémité ouverte par laquelle le matériau est déversé; un conduit d'alimentation ayant une première extrémité ouverte communiquant avec le conduit principal et comportant une seconde extrémité ouverte; une enveloppe tubulaire ayant une première extrémité raccordée à la seconde extrémité du conduit d'alimentation et comportant une seconde extrémité; une paroi tubulaire disposée à l'intérieur de l'enveloppe tubulaire, conçue pour contenir une certaine quantité du matériau et comportant deux extrémités, la première étant raccordée au conduit principal par le conduit d'alimentation; un piston installé à l'intérieur de la paroi tubulaire de façon qu'il puisse glisser le long de celle-ci, comportant une première surface conçue pour agir sur le matériau dans la paroi et doté d'une seconde surface opposée; une conduite de pressurisation raccordée à la seconde extrémité de l'enveloppe et la reliant à la source d'air comprimé, conduite pouvant être commandée à volonté pour appliquer une pression pneumatique à la seconde surface du piston afin de déplacer celui-ci le long de la paroi tubulaire, forçant ainsi le matériau extrudé à pénétrer dans le conduit principal; un diffuseur monté sur l'enveloppe entre la conduite de pressurisation et le piston et capable de diffuser l'air comprimé le traversant; le matériau extrudé pénétrant dans le conduit principal peut ainsi être propulsé par l'air comprimé et être éjecté par la seconde extrémité du conduit principal. Écrire à: M. John DeNardo, C.P. 1893, Highland (Indiana) 46322 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 1920 First Federal Building, 1001 Woodward Avenue, Détroit (Michigan) 48226-1966 (É.-U.).

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

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

Positive Traction Ski/324

Invention permits free forward sliding and resistance to back slipping of cross-country skis by utilizing a traction lug fitted with studs or blades which bite into the snow when pressure is applied to a pedal or hydraulic bellows under the foot during forward thrust. The traction lug is hinged to the back of the ski and is engaged and disengaged alternately as the skier thrusts forward or coasts freely. Positive traction is activated by bearing down on the bellows or pedal under the foot during the forward stride. When the thrust is completed and weight is shifted back to the heel, pull back springs draw the pedal and therefore the traction lug, back to the up position. If hydraulic methods are used, a hydraulic cylinder attached to the traction lug is necessary. Write: **PATENT 1,103,285**, Mr. Ernest Wurfel, 505 - 8th Avenue, South Lethbridge, Alberta T1J 1N7 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Shoe Cleaning Device/324

A shoe cleaning device primarily intended for domestic use includes an elongated casing with an open top end; a pair of parallel rollers rotatably mounted in the casing; pads carried by the rollers, the pad on one roller having a deep pile for picking up cleaning water and for removing dirt from the bottom of a shoe sole when the sole is rubbed against the roller, the second roller constantly engaging the first roller and having a shorter, brush-like pile for removing dirt from the first roller. The first roller is slidably mounted in the casing for movement between a rest position and an operating position, in which the roller moves downwardly against the bias of springs into contact with the cleaning water. The springs return the first roller to the rest position at the end of a cleaning operation. Write: **PATENT 1,134,569**, Sophia Berta, 224 Queensland Drive S.E., Calgary, Alberta T2J 3R8 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.

Fibre Reinforced Plastic Structures and Method and Apparatus for Producing Same/324

Forces are applied to cut fibres in a prescribed fashion to cause them to move in a predetermined manner toward and to be deposited on a mould surface in a controlled oriented fashion. Write: **PATENT 1,134,582**, Atlantic Bridge Company Limited, P.O. Box 299, Mahone Bay, Nova Scotia B0J 2E0 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.

In-Ground Trailer Post Assembly/324

A tubular portion is embedded vertically into the ground and has a screw threaded upper end substantially flush with the surface of the ground. A screw threaded stem or post detachably engages the upper end when a trailer is to be parked thereon, and the stem is provided with the ball portion of a trailer coupler assembly on the upper end thereof engageable by the coupler portion of the trailer coupler assembly situated on the front end of the hitch frame. A padlock through the release lever prevents unauthorized removal of the trailer from the post and the post can be unscrewed and stored when the trailer is not parked at the post assembly. Write: **PATENT 1,134,590**, Joseph Stratichuk, 4226 Batchelor Avenue, Winnipeg, Manitoba R3R 0P6 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.

Method of and Apparatus for Monitoring Movement of a Mine Conveyor/324

The longitudinal slippage or creep of a mine conveyor is monitored optically with a view to saving production. The method

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

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

Ski à traction positive/324

Invention permits free forward sliding and resistance to back slipping of cross-country skis by utilizing a traction lug fitted with studs or blades which bite into the snow when pressure is applied to a pedal or hydraulic bellows under the foot during forward thrust. The traction lug is hinged to the back of the ski and is engaged and disengaged alternately as the skier thrusts forward or coasts freely. Positive traction is activated by bearing down on the bellows or pedal under the foot during the forward stride. When the thrust is completed and weight is shifted back to the heel, pull back springs draw the pedal and therefore the traction lug, back to the up position. If hydraulic methods are used, a hydraulic cylinder attached to the traction lug is necessary. Write: **PATENT 1,103,285**, Mr. Ernest Wurfel, 505 - 8th Avenue, South Lethbridge, Alberta T1J 1N7 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Dispositif de nettoyage des chaussures/324

A shoe cleaning device primarily intended for domestic use includes an elongated casing with an open top end; a pair of parallel rollers rotatably mounted in the casing; pads carried by the rollers, the pad on one roller having a deep pile for picking up cleaning water and for removing dirt from the bottom of a shoe sole when the sole is rubbed against the roller, the second roller constantly engaging the first roller and having a shorter, brush-like pile for removing dirt from the first roller. The first roller is slidably mounted in the casing for movement between a rest position and an operating position, in which the roller moves downwardly against the bias of springs into contact with the cleaning water. The springs return the first roller to the rest position at the end of a cleaning operation. Write: **PATENT 1,134,569**, Sophia Berta, 224 Queensland Drive S.E., Calgary, Alberta T2J 3R8 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.

Corps en plastique armé de fibres, et méthode et dispositif pour la production desdits corps/324

Forces are applied to cut fibres in a prescribed fashion to cause them to move in a predetermined manner toward and to be deposited on a mould surface in a controlled oriented fashion. Write: **PATENT 1,134,582**, Atlantic Bridge Company Limited, P.O. Box 299, Mahone Bay, Nova Scotia B0J 2E0 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.

Poteau d'ancrage pour remorque/324

A tubular portion is embedded vertically into the ground and has a screw threaded upper end substantially flush with the surface of the ground. A screw threaded stem or post detachably engages the upper end when a trailer is to be parked thereon, and the stem is provided with the ball portion of a trailer coupler assembly on the upper end thereof engageable by the coupler portion of the trailer coupler assembly situated on the front end of the hitch frame. A padlock through the release lever prevents unauthorized removal of the trailer from the post and the post can be unscrewed and stored when the trailer is not parked at the post assembly. Write: **PATENT 1,134,590**, Joseph Stratichuk, 4226 Batchelor Avenue, Winnipeg, Manitoba R3R 0P6 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.

Méthode et dispositif de gardiennage d'un transporteur minier/324

The longitudinal slippage or creep of a mine conveyor is monitored optically with a view to saving production. The method

involves transmitting an optical signal from a primary source in the mine roadway to a reflector on the conveyor and receiving the reflected signal with a receiver adjacent to the primary source and reducing the angular movement of the reflector and line creep of the conveyor. An optical method is used to calculate the distance between the primary source and conveyor by measuring the time taken for a light signal to travel from the source to the reflector and back again. Alternatively or additionally, cord transducer is used to measure the distance. Processing circuitry calculates the conveyor creep from the angle and distance measurements. The invention provides apparatus for carrying out the above method. Write: **PATENT 1,134,610**, 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.

Handwriting System/324

Dispositif pour apprendre à écrire/324

With respect to the teaching of a young child to handwrite or print, a pencil, paper and visual outlines of letters are used with varying degrees of success. This invention is composed of two separate devices which should be used in combination, to make more effective the learning process, or to be used in improving the quality of handwriting. The devices cause correct finger position and angle of the writing instrument. The one component is an irregularly shaped moulded unit into which a pencil, pen or other writing instrument, may be inserted, or, a moulded unit which forms part of the outer casing of the writing instrument. Appropriate indentations in the unit are provided to receive and control the position of the three fingers normally used to hold a writing instrument. Detachable wings form part of the device to guide the hand into a specific angle with relation to the writing surface. The second component of the system is a template in which the printed or written characters (character may be defined as any digit, alphabetic letter, or symbol such as the dollar sign or shorthand outline) are engraved with grooves cut at an angle so as to complement the wings in the moulded unit. The bottom of the groove of some characters, requiring a crossover while tracing, is uneven, to create a type of switch to guide the writing instrument along the correct path. The template would provide the facility for tracing, many times quickly and accurately, acceptable outlines of the characters. Write: **PATENT 1,134,611**, Thomas W. Crawford, 239 Grove Street, East, Barrie, Ontario L4M 2R1 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.

Snowshoe Footwear/324

Raquettes de neige/324

The attachment straps for snowshoes usually require a buckle type strap or tied construction which is difficult to retain over the toe of the boot or shoe during use. Tabs sewn to the side of moccasins are used to retain the straps but these are not usable with other types of footwear such as boots and the like. In one embodiment of the invention, the sole is widened out at the area of strap engagement and provided with vertically situated closed ended slots through which the straps engage thus holding the footwear in the desired position relative to the snowshoe. The preferred embodiment utilizes similar slots but opening out onto the periphery of the enlarged sole portion so that the strap can be engaged and disengaged without buckling. This also permits a closed elasticized strap to be used as it can be engaged and disengaged and snapped into position over the instep or vamp area of the boot or shoe. Write: **PATENT 1,134,612**, Stephen J. Lesavage, 150 Robindale Road, Winnipeg, Manitoba R3R 1G7 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.

Wood, Coal, or Peat Converter for Cars or Trucks, Etc./324

Convertisseur de bois, charbon ou tourbe pour véhicules automobiles (gazogène)/324

An apparatus for generating and enriching vapour for use as fuel in an internal combustion engine is disclosed. Solid fuel such as wood, coal or peat is burned in a combustion chamber during enrichment by a spray of kerosine/water, and the resulting vapour is filtered, cooled, and passed to a mixing chamber for introduction into an internal combustion engine. Kerosine, glycerol or hydroxylamine is introduced into the vapour in the mixing chamber and this enriches the combustible mixture. Write: **PATENT 1,134,625**, David F.J. Marhoff, P.O. Box 1792, Station "A", London, Ontario N6A 5H9 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.

Livestock Barn Ventilation System/324

Système d'aération pour étable/324

A barn ventilating system includes an inlet located centrally of the peak of the roof for admitting fresh air to a manifold, which distributes the air to each side of the barn, wherein fans blow the air into elongated, perforated plastic tubes for carrying the air along the length of the barn; and a pair of outlets also located at the peak of the roof, one at each end thereof, for discharging stale air from the barn. Write: **PATENT 1,134,667**, Dale Steckley, R.R. 2, Carstairs, Alberta T0M 0N0 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.

Radiant Heat Broiler Assembly/324

Gril chauffant par rayonnement/324

Conventional broilers, particularly those used for fast food type cooking, utilize charcoal, gas or electric grills either with direct or indirect cooking characteristics. These are relatively expensive to operate, slow in start up, and can catch fire if too much heat is applied and fat is present. The present invention utilizes a pair of opposed gas or electric infared or radiant heaters, situated substantially vertically with a rack therebetween within which food to be cooked can be inserted or withdrawn from between the two heaters. Fat and the like drip downwardly into a drip pan situated below the heaters thus reducing any tendency for the food or fat to ignite regardless of the length of time the food is left in place. Write: **PATENT 1,134,694**, John J. Polasek, 151 McSherry Crescent, Regina, Saskatchewan S4T 7B5; John Latridis, 165 McDougall Crescent, Regina, Saskatchewan S4S 5M6 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.

Endless Track Construction and Method of Forming Same/324

Chenille et méthode de fabrication connexe/324

A plurality of sections are fitted together so that they fit around an uninflated tire and they are fastened together to form a rigid cylinder. The tire is then inflated thus holding the now solid rim or track in position. Each section includes a curved base and a ground-surface engaging projection extending therefrom. The curved base includes a planar plate portion at one end and a trailing jaw portion at the other end. The plate portion of one section engages the jaw portion of the next adjacent section and the jaws are then closed over the plate and a fastener such as a rivet or the like, is placed through the jaws and through the plate thus forming the rigid connection. There is room provided in the engagement of the plate with the jaws to adjust the section before fastening same so that the desired diameter of the finished rim or track may be obtained. Write: **PATENT 1,134,732**, Ronald M. Frank, Box 6, Group 13, S.S. 1, Winnipeg, Manitoba R3C 2E8 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.

Boat Fastening Clamp/324

Dispositif de calage d'embarcations/324

A clamp is disclosed for securing a gunwale of a boat to a carrier rail on which it is resting. The clamp includes a length of channel with a plurality, preferably three holes spaced along the web. A flat plate has a similar plurality of holes corresponding to those in the channel. Bolts pass through corresponding apertures in the channel and the plate, and wing nuts are threaded onto the bolts. In use, one of the flanges of the channel is engaged with the gunwale of the boat, over a carrier rail, the plate is positioned under the rail and is secured to the channel by the bolts. With three holes in each of the channel and plate, and two bolts the clamp may be used on a wide variety of boats and carriers. Write: **PATENT 1,134,789**, T. Maurice Gaudreau, 71 Oval Drive, Aylmer, Quebec J9H 1V4 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.

Precision Launching Target for Life Buoys/324

Cible pour le lancer de précision de la bouée de sauvetage/324

Il est d'usage courant dans les tests de lancer de la bouée de sauvetage de définir certains critères de précision à observer dans l'exécution du lancer. La mesure de cette précision jusqu'à date n'a pu être faite que de façon subjective. C'est-à-dire que les tests conçus pour mesurer la précision des lancers de la bouée de sauvetage repose presque exclusivement sur des échelles de valeurs mentales telles que perçues et interprétées par l'enseignant. Pour faciliter la mesure et pour la rendre plus objective et plus fidèle, une cible de lancer fut construite. La cible pour le lancer de précision de la bouée de sauvetage constitue un instrument pour mesurer l'habileté de lancer avec précision la bouée de sauvetage. Elle est construite de tuyaux en aluminium, ou en toute autre matière convenable, de sorte que celle-ci flotte à la surface de l'eau et maintienne sa forme. La cible et ses parties sont maintenues en place sur l'eau par un système de crochets et de cordes. Les tuyaux formant la cible délimitent différentes zones de précision. Ces zones de la cible sont conçues pour mettre en valeur les critères de précision utiles au lancer de la bouée de sauvetage. Écrire: **BREVET 1,134,872**, Jean Nowlan, R.R. 1, Ste-Marie de Kent, Nouveau-Brunswick E0A 3A0 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.

Wire Stripper/324

Dénudeur de fils/324

A wire stripping tool with two facing jaw surfaces that slide over one another about a fixed pivot axis in a shearing motion. Arcuate grooves are formed in the facing surfaces at equal radii from the axis. The grooves lead inwardly from substantially radial leading edges. Wire fed between the leading edges is initially engaged by the leading edges and the insulative wire cover is cut through. Simultaneously, the wire is shifted in orientation from a position substantially perpendicular to the axis. One jaw member then operates against the body of the wire insulation while the opposite member slides the cut insulation axially off the wire core. Write: **PATENT 1,135,033**, John F. Gill, 919 Libby street, Clarkston, Washington 99403 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.

Training Apparatus for Visually Impaired Person/324

Appareil pour faciliter la mobilité des malvoyants/324

An apparatus to improve the mobility of a visually impaired person comprises first and second exciter systems placed on either side of the person and acting to produce light beams which are received by corresponding first and second receivers, and first and second sound devices each with the corresponding associated receiver to produce a distinctive sound when the light beam is interrupted before getting to the receiver. In a preferred embodiment, the apparatus includes a cane held by the person so that as the cane is moved into the path of the light beam, the light beam is interrupted. The sounds, or lack thereof, which accompany the movement of the person and/or the cane provide an indication to the person whether the cane is being used properly and/or whether the person is walking in a straight line, e.g., between the light beams. Write: **PATENT 1,135,052**, James D. Hajduch, 1703 Carolina Avenue, Whiting, Indiana 46394 and send a copy of your initial correspondence to Canadian Consulate General, 1920 First Federal Building, 1001 Woodward Avenue, Detroit, Michigan 48226-1966, U.S.A.

Automatic Fishline Baiting Machine/324

Mécanisme d'amorçage automatique de lignes de pêche/324

A baiting machine with a unique mechanical combination devised to provide an automatic means for the random baiting of the longlines used in the fishing industry. It embodies the principles of the use of gravity to aid in the baiting of the longlines and the principle of the motion of the fishing boat itself to distribute the longlines in the sea or water, which principles are not used in any other type of baiting machine known in the fishing industry. The principles involved and the conical design of the important parts and the whole general configuration of the assembly and its adjunctive parts, which enables the principles to apply and the machine to work, are unique and peculiar to this completely new approach to the automatic baiting of longlines used in the fishing industry. Write: **PATENT 1,135,057**, Jenkins Industries Limited, 62 McCurdy Drive, Gander, Newfoundland A1V 1A2 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.

Method for Constructing an Artificial Island/324

Méthode d'aménagement d'une île artificielle/324

An artificial island is constructed by depositing material such as sand, clay or the like on the building site on the sea bottom and by providing inhibiting means formed by branched, relatively spaced elements positioned on the building site, to reduce the rate of effluence of the material such as sand, clay or the like along the sea bottom. Write: **PATENT 1,135,063**, Ballast-Nedam Groep N.V., No. 2, Laan van Kronenburg, Amstelveen, Netherlands; Amsterdamse Ballast Bagger en Grond B.V. No. 2, Laan van Kronenburg, Amstelveen, Netherlands and send a copy of your initial correspondence to Canadian Embassy, Sophialaan 7, The Hague, Netherlands.

Musical Notation/324

Notation musicale/324

A keyboard comprises a front row of keys and a rear row of keys corresponding to respective whole-tone scales a semitone apart. The rear keys are symmetrically staggered between the front keys. Musical notation for use with the keyboard comprises a stave with lines arranged in pairs, the width of the space between adjacent pairs being substantially double the width of the space between the lines of a pair. The notation includes note-heads 11, 12 positioned in relation to the stave lines, there being two types of note-head distinguished by coloration, corresponding respectively to the two rows of keys 16, 17. Write: **PATENT 1,135,085**, Capper Styles Whole Tone Co., Limited, Templar House, Don Road, St. Helier, Jersey, Channel Islands, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Wood Burning Stove/324

Poêle à bois/324

A wood burning stove having a lower main fire box and a vertically offset oven unit. Directly under the cooking surface of the lower firebox is an auxiliary firebox; the air supply inlet has means to selectively direct the incoming air to either firebox so that a small cooking fire can be used alone. The main firebox door has a glass panel and a removable stainless steel plate to reflect heat back to the glass to burn off accumulated deposits thereon. Write: **PATENT 1,135,134**, Eugene A. Kroupa, Grand Etang, Inverness County, Nova Scotia B0E 1L0 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.

Heat Transfer Device/324

Dispositif de transfert de la chaleur/324

A heat transfer device for use in a gas barbecue includes a solid cast iron plate, which is mounted in the barbecue between the burner and the food holding grate, i.e., in the position normally occupied by the lava bed. The plate has an irregular

top surface resembling a lava bed and a plurality of holes permitting the passage of fats and juices from the food for reducing flaming. The device further serves to divide and control the flow of air and gases between chambers of the barbecue. Write: **PATENT 1,135,138**, Don J. Miller, 5036 Barron Drive, N.W., Calgary, Alberta T2E 6R7 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.

Fluid Mixing Valve/324

Robinet mélangeur/324

This fluid mixing valve is particularly adapted to mix steam and water to operate a liquid nozzle gun as for instance in the food processing industry to wash utensils and equipment. This valve is adapted to be connected upstream of the gun in particular to prevent burns by the steam, to minimize the waste of steam, and to minimize the occurrence and effects of water hammers resulting from mixing steam with water. This valve comprises a body defining a steam inlet, a water inlet, a heated water outlet, a heat exchanger connecting both inlets to the outlet, a piston chamber, and a venturi nozzle merging the chambers of the heat exchanger for flow of water under suction by the steam flow. A valve closes the steam inlet under the action of a piston responsive to the pressure in the liquid inlet and a bleed valve and passage are arranged to bleed unintentional flow of water when the mixing valve is closed to prevent unintentional opening of the valve. Write: **PATENT 1,135,153**, Léo Charland, 9620 boulevard Gouin West, Pierrefonds, Quebec H8Y 1R5 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.

Powered Implement with Work Elements Pivotally Mounted on an Implement Mounting and a Torque Tube for Rotating Such Mounting/324

Tarière mécanique sur flèche d'engin de foration/324

A power-operated implement mechanism mounted on the tip of a boom. The mechanism includes a torque tube which is rotated under power to rotate an implement mounting. A fluid-operated ram which is actuated to cause opening and closing of work implements in the mechanism has its rod extending downwardly through the torque tube thence to be connected through linkage to the work implements. The work implements are pivotally mounted on the implement mounting. The implement mounting is rotated about the axis of the torque tube through power-operated means operatively connected to the torque tube. Write: **PATENT 1,135,221**, North Bend Fabrication & Machine, Inc., P.O. Box 744, North Bend, Oregon 97459 and send a copy of your initial correspondence to the Canadian Consulate General, 412 Plaza 600, Sixth and Stewart, Seattle, Washington 98101-1286, U.S.A.

Method and Apparatus for Measuring the Degree of Fullness of a Mill Driven by an Electric Motor/324

Méthode et dispositif de mesure du chargement d'un broyeur entraîné par un moteur électrique/324

The degree of fullness of a mill driven by an electric motor is measured by, firstly, measuring the variation of the power input of the mill, and secondly, determining the degree of fullness of the basis on the degree of variation of said power input, whereby use is made of test or calibration measurements performed previously with different degrees of fullness. Preferably a current or voltage signal descriptive of the power input is created and then a signal representing the degree of fullness is generated as proportional to the amplitude of said voltage or current signal. Write: **PATENT 1,135,364**, 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.

Vortex Type Flow Monitors/324

Détecteur de vortex dans un débit/324

A fluid flow monitor of the sort which detects the rate of formation of Karman vortices caused by a blunt obstruction in a fluid stream. The invention mitigates problems associated with the formation of spurious electrical signals not related to the Karman vortices by providing an amplifier which amplifies frequencies selected by a comparator arrangement the comparator arrangement being controlled by the value of a further signal proportional to the number of detected Karman vortices. Write: **PATENT 1,135,396**, 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.

Corner Joint Formation for Building Log/324

Méthode d'assemblage des pièces de bois de construction préformées/324

A corner joint formation for pre-shaped building logs of the type in which the flanks of a notch in the top of one log fit against the sides of a neck formed by a notch in another log forming a corner with the first log, wherein the mating side

faces of the neck and notch are tapered so as to fit closely together when the logs are fully engaged. The tapered flank faces of the notch stand proud of an outer shoulder which conforms closely to the outline sectional shape of the mating log and forms an interference fit with a similar shoulder of this mating log. The neck of the joint formation is preferably ridged to inhibit flow of water across the joint, and in addition a weather strip may project from the upper edge of the neck ridge to inhibit flow of air across the joint. Write: **PATENT 1,135,467**, G. Howard Cornell, 4315 Villa Crescent, N.W., Calgary, Alberta T2L 2K2 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.

Device for Mechanically Tying a Bare Cable to an Insulator/324

Dispositif pour la fixation mécanique d'un câble nu sur un isolateur/324

L'invention concerne la fixation d'un câble nu sur un isolateur électrique, au moyen d'un dispositif comportant une pièce fixe solidaire de l'isolateur et présentant une gorge formant berceau pour recevoir le câble, et une pièce mobile assurant le maintien du câble dans son berceau en position verrouillée. Conformément à l'invention, la pièce fixe et la pièce mobile présentent une surface de contact avec le câble à fixer telle que ledit câble est soumis en position verrouillée à une déformation progressive de sa section selon une première direction sensiblement perpendiculaire à la direction correspondant au serrage de la pièce mobile au niveau de la zone centrale du berceau, et selon une deuxième direction essentiellement perpendiculaire à la première direction au niveau des deux entrées du berceau. Application notamment aux isolateurs supports et aux isolateurs suspendus. Écrire à: **BREVET 1,135,486**, Ceraver, 12, rue de la Baume, 75008 Paris (France) et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, 35, avenue Montaigne, 75008 Paris (France).

Helically Wound Pipes and Method/324

Canalisations hélicoïdes, et méthode de production connexe/324

Helically wound pipes and a method of making same is disclosed. The pipes are formed from pre-grooved strips which are helically wound and then seamed. Write: **PATENT 1,135,487**, Westaflexwerk L. & F. Westerbarkey, Zum Stillen Frieden 22, 4830 Gutersloh 1, West Germany and send a copy of your initial correspondence to Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Oil Recovery by Flooding with Micellar Dispersions Containing Crude Oil Sulfonates/324

Récupération du pétrole par injection de dispersions micellaires contenant des sulfonates de pétrole brut/324

Improved oil recovery by flooding subterranean formations with micellar dispersions; comprised of hydrocarbon, water, cosurfactant, electrolyte, and petroleum sulfonate obtained by sulfonating whole or topped crude oil; is obtained by incorporating within the micellar dispersion about 1.5 to about 4.5 wt. % of active sulfonate groups (e.g. $-SO_3NH_42$ or $-SO_3Na$) which are attached to the petroleum sulfonate. The micellar dispersions of this invention contain an amount of cosurfactant in excess of the amount required to produce a viscosity maximum with the particular micellar dispersion. Write: **PATENT 1,135,491**, Marathon Oil Company, 539 South Main Street, Findlay, Ohio 45840 and send a copy of your initial correspondence to Canadian Consulate General, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113-1983, U.S.A.

Toy Aircraft/324

Aéronef-jouet/324

A toy aircraft having a rotatable wing assembly having at least two blades of aerofoil cross-section extending radially outwardly from the axis of rotation of the assembly, each blade having a zero pitch angle so that in operation the blades have a negative pitch angle relative to the airstream. Write: **PATENT 1,135,507**, Plectrum Pty Limited, Australia House 2, 35 Marks Street, Naremburn, New South Wales 2065, Australia and send a copy of your initial correspondence to Canadian Consulate General, A.M.P. Centre, 8th Floor, 50 Bridge Street, Sydney, N.S.W. 2000, Australia.

Method for Continual Replacement of the Rubber Lining in a Rotating Mill/324

Méthode de renouvellement continu du chemisage d'un broyeur rotatif/324

A method is described for sequential replacement of the lining in a rotating mill according to wear of the lining. Generally, such a lining consists of adjacent zones parallel to the rotational axis of the mill, the height of these zones varying periodically in the peripheral direction of the mill. According to the invention rubber beams of equal width are used, and for the replacement operation completely fresh beams of only one height are employed, this height representing the highest one of only a few preselected categories of beams. Upon removal of worn beams, these are reassorted according to the selected categories and those beams worn-out and unfit for even the lowest category are discarded. Thus, the reassorted beams not rejected can be reused properly positioned so as to maintain a suitable variation of the beam height in the peripheral direction of the mill, and only one height of fresh beams need to be held in stock. When replacing, the particular beam

category may be retained at a certain beam position, or completely fresh beams may be inserted at positions of beams completely discarded, whereby the desired variation of beam height in the peripheral direction is obtained by suitable replacement or rearrangement of the remaining beams. Write: **PATENT 1,135,672**, Outokumpu Oy, P.O. Box 280, SF-00101 Helsinki 10, Finland and send a copy of your initial correspondence to Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Vacuum Cleaning Machine for Extracting Wet/Dry Material from a Surface/324

Aspirateur de dépoussiérage et d'assèchement/324

A vacuum cleaning machine for extracting wet/dry material from a surface to be cleaned, such as a carpet. The machine has a housing with a removable container located therein. A suction conduit having a suction head is provided to extract the wet/dry material from the surface to be cleaned. A cover is provided above the container and has an open bottom, a peripheral sealing edge, and an enclosed wall above the sealing edge. A suction head extends through the peripheral sealing edge. An inlet passage is provided within the enclosed wall and defines an inlet end and an outlet end. A suction port is connected to a suction motor and is directed at the outlet end and spaced below the enclosed wall for sucking the liquid cleaning solution into the inlet passage. The outlet end is directed to release the solution at the enclosed wall away from the suction port for collecting the solution in the container. Write: **PATENT 1,135,910**, Innova Equipment Limited, 70E Brunswick Boulevard, Dollard des Ormeaux, Quebec H9B 2C5 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.

Ceramic Component for MHD Electrode/324

Composant en céramique pour électrode MHD/324

A ceramic component which exhibits electrical conductivity down to near room temperatures has the formula: $Hf_xIn_yA_zO_2$ where $x = 0.1$ to 0.4, $y = 0.3$ to 0.6, $z = 0.1$ to 0.4 and A is a lanthanide rare earth or yttrium. The component is suitable for use in the fabrication of MHD electrodes or as the current leadout portion of a composite electrode with other ceramic components. Write: **PATENT 1,135,953**, Mr. James E. Denny, Assistant General Council for Patents, Office of the General Council, 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.

Coated Woven Materials and Method of Preparation/324

Tissés enduits, et méthode de préparation connexe/324

Coating of woven materials so that not only the outer surfaces are coated has been a problem. Now, a solution to that problem is the following: Woven materials are coated with materials, for example with metals or with pyrolytic carbon, which materials are deposited in Chemical Vapor Deposition (CVD) reactions using a fluidized bed so that the porosity of the woven material is retained and so that the tiny filaments which make up the strands which are woven (including inner as well as outer filaments) are substantially uniformly coated. Write: **PATENT 1,136,008**, 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.

Cleaner for Nose/324

Appareil pour aspirer les sécrétions nasales/324

This invention will allow cleaning of the nose by the utilisation of a small aspirator equiped with a garbage receiver. When the receiver is pushed in one nostril, the garbages in that nostril will be aspirated in the receiver. The receiver is thrown away after usage. It will be very easy for somebody to clean his nose, the nose of a child, or of any other persons or animals. Write: **PATENT 1,136,018**, Gaétan D. Bernier, 12210 - 27e avenue, Rivière-des-Prairies, Montreal, Quebec H1E 1Z5 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.

Apparatus and Method for Separating Entrained Particulate Matter from a Conveying Fluid/324

Dispositif et méthode de séparation des particules en présence dans un fluide transporteur/324

Particulate matter is collected in an overlying porous layer on an upstream side of a rotatable, fluid-permeable filter in a first chamber, and rotatably conveyed into a second chamber and used as an additional filtering medium. The filter comprises a cylindrical drum having a filter surface thereon and is rotatably mounted in an enclosed housing having a fluid inlet and a fluid outlet. Fluid pumping means operatively communicate with the housing for inducing a flow of fluid into the housing through the inlet and out of the housing through the outlet. Chamber means are disposed within the housing and sealingly cooperate therewith and with the cylindrical drum and define a first chamber fluidly communicating with the

inlet and a predetermined portion of the cylindrical drum on the upstream and downstream sides thereof. A second chamber is provided which fluidly communicates with the outlet and a second predetermined portion of the cylindrical drum on the upstream and downstream sides thereof. Drive means rotate the cylindrical drum at a predetermined rate through the first chamber for collecting on the filter surface an overlying porous layer of particulate matter, and through the second chamber for filtering fluid through the filter surface and the overlying porous layer of particulate matter. Doffing means are provided for cleaning the filter surface by removing the porous layer of particulate matter therefrom subsequent to the passage thereof through the second chamber. Write: **PATENT 1,136,069**, Terrell Machine Company (The), P.O. Box 240868, 8801 South Boulevard, Charlotte, North Carolina 28224 and send a copy of your initial correspondence to the Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, N.W., Atlanta, Georgia 30303-1290, U.S.A.

Weather-proof Antenna Tower Bearing Assembly/324

Palier à l'épreuve des intempéries pour tour d'antenne/324

A bearing assembly for a radio tower of the type having a plurality of vertical legs and a central freely rotatable vertical shaft having an antenna at the upper end. The bearing assembly comprises a tubular housing through which the antenna shaft extends. This includes thrust and radial bearings at upper and lower ends of the tubular housing. A plate is fixed to the upper end of the tubular housing and stub shafts at corners of the plate engage the top ends of the legs. The upper bearing is located within an upwardly-open cylindrical case at the center of the plate and the top of the tubular housing, and a rubberlike boot encloses the rotatable shaft and case to provide a weather-proof seal for the upper bearing. The housing is supported further by sideward arms extending radially from a lower position thereof for bearing against sides of the legs. The upper and lower bearing means are separated by a distance which is several times the diameter of the rotatable shaft. Write: **PATENT 1,136,268**, Orrin E. Ingles, 5004 North Graceland Drive, Peoria, Illinois 61614 and send a copy of your initial correspondence to the Canadian Consulate General, 310 South Michigan Avenue, 12th Floor, Chicago, Illinois 60604-4295, U.S.A.

Process for Impregnating Cellulosic Materials and Products Hereby Obtained/324

Méthode pour imprégner des matières cellulosiques, et produits ainsi obtenus/324

A process for impregnating a cellulosic material, especially wood, to improve its resistance to moisture and to increase its dimensional stability, wherein the material is brought into contact with an agent comprising a silane of the formula:

$$R_1 \quad \begin{matrix} R_2 \\ Si \\ R_3 \end{matrix} \quad R_4$$

wherein R_1, R_2 and R_3 are same or different and are selected from the group comprising: alkoxy with 1 to 6 carbon atoms, and R_4 is equal to any of R_1, R_2 and R_3 or selected from the group comprising: alkyl and cycloalkyl with 1 to 6 carbon atoms, aryl, aralkyl and organo-functional radicals, or with a hydrolysate or hydrolysate-condensate of such silane. The invention also extends to products prepared by such process. Write: **PATENT 1,136,358**, Josef Pühringer, Björnkällevägen 35, S 18364 Täby, Sweden and send a copy of your initial correspondence to Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm 16, Sweden.

Separation of an Aqueous Solution by the Improved Vacuum Freezing High Pressure Ice-Melting Process/324

Séparation des composants d'une solution aqueuse par liophylisation sous vide et décongélation sous haute pression/324

In the Improved Vacuum-Freezing High Pressure Ice Melting Process, an aqueous solution is flash vaporized under a reduced pressure to simultaneously form a low pressure water vapor and ice crystals. The ice formed is first purified in a counter-washer and then melted inside of heat conductive conduits under a high pressure (e.g. 600 atm.) and the low pressure water vapor is desublimed to form desublimate (ice) on the outside of the conduits. The latent heat of desublimation released is utilized in supplying the heat needed in the ice-melting operation. The desublimate is removed intermittently by an in-situ dissolution operation utilizing an aqueous solution such as the feed solution or the concentrate; about an equivalent amount of ice is formed inside of the conduits by an exchange freezing operation. The ice so formed is also melted by the high pressure ice melting operation described. Write: **PATENT 1,136,383**, Chen-yen Cheng, 9605 La Playa Street, N.E. Albuquerque, New Mexico 87111 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014-1377, U.S.A.

Electronic Teaching Device for Playing Music Instruments/324

Dispositif électronique pour enseigner à jouer d'un instrument de musique/324

An apparatus comprising: a perforated music roll of the kind used with player pianos; means for unwinding said roll from

a designated roller and onto another roller at a controlled rate; means for illuminating with electro-magnetic radiation through the perforations in said roll, electro-magnetic-radiation-sensitive sensors; means for amplifying signals from said sensors and feeding the amplified signals to respective solid-state light-emitting means; said light-emitting means signalling to the pupil actions to be performed to play music on a musical instrument each respective indicating means corresponding to at least one note to be played by the pupil on the musical instrument. Write: **PATENT 1,136,405**, Julio Bailon, 4120-135 Avenue, Edmonton, Alberta T5A 2N7 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.

Recovery of Tungsten Values from Tungsten-Bearing Materials/324

Séparation des éléments de tungstène en présence dans des matières teneur de tungstène/324

A method of recovering tungsten values from a high grade tungsten bearing ore or concentrate such as scheelite or wolframite includes the steps of roasting, without fusion, the ore or concentrate in the presence of a reactive composition selected from the group of an alkali metal chloride, an alkali metal carbonate and mixtures thereof and extracting the water-soluble tungsten values from the roasted product, e.g. by water leaching. The reactive composition is preferably an alkali metal carbonate on its own. Write: **PATENT 1,136,422**, Anglo American Corporation of South Africa Limited, 44 Main Street, Johannesburg, Transvaal, Republic of South Africa and send a copy of your initial correspondence to Canadian Embassy, P.O. Box 26006, Arcadia, Pretoria 0007, South Africa.

Door Suspension/324

Dispositif de suspension pour porte/324

Suspension hardware for interior doors, such as closet or wardrobe doors and the like, incorporating overhead and floor mounted hardware assemblies, each incorporating a pair of angularly intersecting track means; the track means of cooperating assemblies being aligned in superposed registry in operation. One track means of each assembly parallels the wall in which the door opening is formed while the other track means is in intersecting relation thereto. Door brackets are affixed to the inner face of the door, adjacent its upper and lower edges, and guide members are mounted thereon for sliding movement along associated track means. Each guide member is pivotally joined to the door (via the associated door bracket) for pivotal movement about a vertical axis so that the door is movable simultaneously along the intersecting paths of the track means to produce arcuate swinging door action. Write: **PATENT 1,136,489**, John Sterling Corporation, 11600 Sterling Parkway, Richmond, Illinois 60071 and send a copy of your initial correspondence to Canadian Consulate General, 310 South Michigan Avenue, 12th Floor, Chicago, Illinois 60604-4295, U.S.A.

Clay Contacting Process for Removing Contaminants from Waste Lubricating Oil/324

Méthode de contact à l'argile pour l'épuration des huiles lubrifiantes épuisées/324

A process is provided for removing contaminants from waste lubricating oil. The previously untreated waste oil is contacted with decolorizing clay at a temperature in the range of about 343°C - 385°C and the clay-oil mixture filtered to produce a filtrate product reduced in contaminants. The clay contacting step may optionally be performed in a hydrogen atmosphere. The filtered product can be used for non-critical uses or further upgraded by conventional methods. Write: **PATENT 1,136,566**, Turbo Resources Ltd., 4709-92 Avenue, Edmonton, Alberta T6B 2J4 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.

Fischer-Tropsch Catalysts/324

Catalyseurs de réactions Fischer-Tropsch/324

Novel polymer-supported metal complexes of the formula:

PS - R Me $(CO)_nH_m$ where:

PS represents a divinylbenzene crosslinked polystyrene in which the divinylbenzene crosslinking is greater than 1% and less than about 18%; R represents a cycloalkadienyl radical of 4 through 6 carbon atoms; Me represents a Group VIII metal; CO represents a carbonyl radical; H represents hydrogen; n represents an integer varying from 0 through 3; m represents an integer varying from 0 through 2 inclusively with the further provision that 2n + m must total 18 when added to the electrons in R and Me, or n + m must total 0; are prepared by: brominating PS - H by treating same with bromine in the presence of a thallium salt in a partially or fully halogenated solvent to form PS - Br; treating said PS - Br so produced with a lithium alkyl of 1 through 12 carbon atoms in an aromatic solvent to produce PS - Li; substituting said PS - Li so produced by reaction with a 2-cycloalkenone of 4 to 6 carbon atoms in the presence of an ether solvent and using a water work-up to form a cycloalkenyl-alcohol-substituted PS ; dehydrating said alcohol so produced by heating under a vacuum to produce a cycloalkadienyl-substituted PS ; reacting the cycloalkadienyl-substituted PS with metal carbonyl in the presence of a partially or fully halogenated hydrocarbon, aromatic hydrocarbon of 6 through 8 carbon atoms, ethers, or esters, of 4 through 10 carbon atoms as a solvent to produce a polystyrene-supported cycloalkadienyl metal carbonyl. The novel compounds are used as improved Fischer-Tropsch catalysts particularly for the conversion of CO + H_2 to gaseous and liquid hydrocarbons at milder conditions than with prior catalysts. Write: **PATENT 1,136,602**, Mr. James E. Denny, Assistant

General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102-1366, U.S.A.

Trirotron: Triode Rotating Beam Radio-Frequency Amplifier/324

Amplificateur radiofréquence à faisceaue tournant ("triotron")/324

High efficiency amplification of radio frequencies to very high power levels including: establishing a cylindrical cloud of electrons; establishing an electrical field surrounding and coaxial with the electron cloud to bias the electrons to remain in the cloud; establishing a rotating electrical field that surrounds and is coaxial with the steady field, the circular path of the rotating field being one wavelength long, whereby the peak of one phase of the rotating field is used to accelerate electrons in a beam through the bias field in synchronism with the peak of the rotating field so that there is a beam of electrons continuously extracted from the cloud and rotating with the peak; establishing a steady electrical field for high-energy radial acceleration of the rotating beam of electrons; and resonating the rotating beam of electrons within a space surrounding the second field, the space being selected to have a phase velocity equal to that of the rotating field to thereby produce a high-power output at the frequency of the rotating field. Write: **PATENT 1,136,764**, Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102-1366, U.S.A.

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NASA

Negotiating centers for NASA patent applications and the Canadian trade offices concerned are listed with the item.

Les centres de négociation pour les demandes de brevet de la NASA et les bureaux commerciaux du gouvernement canadien concernés sont indiqués avec l'article.

Optical Distortion Analyzer System/324

Analyseur de distorsion optique/324

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed August 28, 1981, by the Department of the Air Force. An optical distortion analyzer system which is capable of automatically quantifying with a high degree of accuracy and repeatability the optical quality of transparencies such as windshields or windows. The analyzer system is made up of a platform adapted to support the transparency with two degrees of freedom. A probe beam of electromagnetic radiation emanating from, for example, a laser is passed through the transparency as the transparency is moved about a horizontal and vertical axis establishing a plurality of test points on the transparency. An analyzer unit receives the probe beam and therefrom establishes horizontal and vertical deviations in the transparency as well as determining the cylindrical and spherical lens power components and principle meridan angle of the transparency. A processor provides recognizable opthalmic parameters of the above characteristics of the transparency and correlates these parameters with the plurality of test points on the transparency. Write: **PAT-APPL-6-297 527**, NTIS.

Grease Composition Containing Poly (Alpha-Olefin)/324

Graisse contenant un poly (alpha-oléfine)/324

Filed March 23, 1982, by the Department of the Air Force. The present invention relates to an extreme pressure grease com-

position and, more particularly, to a grease composition containing a poly (alpha-olefin). The need for high performance grease compositions capable of supplying good wear properties over a broad temperature range and under extreme pressures is well established. Such lubricants find their principal application in high speed aircraft and aerospace vehicles. Christian, U.S. Patents Nos. 3,642,626; 3,662,512; and 3,814,689 disclose greases formulated from polyol aliphatic esters, fluorinated polysiloxanes and polyol aliphatic ester/fluorinated polysiloxane blends. While these greases have been useful as extreme pressure anti-wear lubricants at temperatures ranging from -73°C to as high as 232°C, their utility has been restricted due to their inability to prevent temperature increases. Write: **PAT-APPL-6-326 973**, NTIS.

Pressure Sensor and Soil Stress Isolation Filter Arrangement in a Pore Pressure Probe/324

Apteur manométrique et filtre d'isolation des contraintes du sol combinés dans une sonde manométrique/324

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed March 12, 1982, by the Department of the Air Force. A system for measuring transient pore water pressure in the ground utilizes a probe member having a unique arrangement of a pressure sensor and a soil stress isolation filter. The probe member has a body portion with a hollow cavity defined therein. The pressure sensor in the form of a ceramic transducer is mounted in the cavity, and the filter in the form of a circumferential gap formed on the body communicates with the cavity. The filter is also configured for isolating the sensor from effective soil fabric stresses while allowing access to the transducer by pore water pressure. A coupling medium in the form of silicone grease fills the cavity so as to transmit the pore water pressure to the transducer. Write: **PAT-APPL-6-357 439**, NTIS.

Simultaneous Doped Layers for Semiconductor Devices/324

Couches dopées simultanément pour dispositifs à semiconducteurs/324

Filed March 12, 1982, by the Department of the Air Force. The present invention relates to semiconductor devices, and, more particularly, to semiconductor materials for the layers therein. The purposes of particular layers can be directed towards such goals as improved ohmic contact between these devices and external circuits, improved electroluminescent, or devices having improved reliability. Electroluminescent devices, for example, are usually constructed of layers of single crystalling semiconductor materials. When biased, these devices emit electromagnetic energy through the process of recombination of oppositely charged carriers. Typical devices are light emitting diodes and lasers having a dual heterojunction. Because these devices are made of layers of different semiconductor materials, problems arise naturally in the fabrication of these materials into different layers, such as lattice mismatch between the layers, and different thermal coefficients of expansion. Another problem in manufacturing semi-conductor devices lies in attaching metal electrical leads to the semiconductor material. Write: **PAT-APPL-6-357 441**, NTIS.

Open-Ended Coaxial Exposure Devices/324

Dispositif d'exposition aux rayonnements provenant de l'extrémité non fermée d'un câble coaxial/324

Filed March 12, 1982, by the Department of the Air Force. A device for, and a method of, delivering a known amount (i.e., a dose) of electromagnetic energy radiation in the radio-frequency/microwave frequency range to a specimen of organic material (e.g. a cell and/or a tissue culture), and thereby exposing the specimen to the delivered energy. The device comprises a source of the desired electromagnetic energy to which is electrically connected a coaxial cable having an open end which terminates in a centrally located aperture of a circular brass ground plane plate to which, in turn, is electrically and mechanically connected to a metallic ring which is positioned such that it is equidistant from the aperture in which the energy-radiating open end of the coaxial cable is located. A circular culture dish which is positioned over the aperture, within the metallic ring, and on the ground plane plate holds the specimen of organic material which is exposed to the energy radiated from the open end of the co-axial cable. Write: **PAT-APPL-6-357 442**, NTIS.

Pore Pressure Probe Assembly and Two-Stage Emplacement Thereof/324

Capteur de la pression des vides dans le sol et méthode d'installation en deux étapes de ce capteur/324

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed March 12, 1982, by the Department of the Air Force. A system for measuring transient pore water pressure in the ground utilizes a unique probe assembly and two-stage emplacement technique therefor. In the initial stage, a large, robust primary probe member of a probe assembly in the measuring system is pushed into the ground to the selected measurement region. In the final stage, a small secondary probe member which is contained within the primary probe member is ejected into the soil when the primary probe member is emplaced at the desired region. The secondary probe member contains a pressure sensor in the form of a highly miniaturized, fast response piezometer which is capable of achieving a responsive coupling with interstitial fluid in the region of measurement. Write: **PAT-APPL-6-357 444**, NTIS.

Azidonitrocarbamates/324 **Azidonitrocarbamates/324**

Filed March 25, 1982, by the Department of the Air Force. This invention involves the synthesis of a novel family of azidonitrocarbamates and their utilization as energetic liquid plasticizers for advanced solid propellant compositions. The novel family of plasticizers is represented specifically by the novel compound, 1,3-diazido-2-propyl-N- nitro-N-trinitropropyl carbamate. Write: **PAT-APPL-6-361 643**, NTIS.

Eddy Current Probe/324 **Capteur de courants de Foucault/324**

Filed April 8, 1982, by the Department of the Air Force. Disclosed is an instrument having a multi-segmented cup core of a high permeability material with a center post. The outer wall of the cup contains equidistant holes and slots through which a plurality of individual windings are constructed to form a circular array of pick up coils. A primary winding or search coil is constructed around the center post. Excitation of the search coil induces eddy currents in adjacent multi-layered bolt hole regions which in turn produces a voltage in each of the pick-up coils. As a crack in the material under test will cause a abnormal distribution of eddy currents, a comparison of the voltage measurements of the specimen under test with those of a reference sample will detect the presence of a crack and its corresponding orientation. Write: **PAT-APPL-6-366 732**, NTIS.

Oxy and Thioaryl-Phenylated Aromatic Biscyclopentadienones/324 **Biscyclopentadiènones aromatiques contenant des groupements oxy et thioaryl-phényles/324**

Filed April 8, 1982, by the Department of the Air Force. Oxy- and thio-aryl-phenylated aromatic biscyclopentadienones are prepared from aromatic bis-benzils and benzylketones. Write: **PAT-APPL-6-366 733**, NTIS.

Device to Measure Temperature of an Annular Elastomeric Seal/324 **Dispositif pour mesurer la température d'un joint annulaire en élastomère/324**

Filed April 8, 1982, by the Department of the Air Force. This invention relates generally to temperature measuring devices incorporating thermocouples, and more particularly to a novel device for measuring in situ the temperature of an annular elastomeric seal during reciprocating cyclic motion of an assembly incorporating the seal. The present invention provides a novel annular elastomeric seal structure configured to measure the temperature of the seal during dynamic cycling at elevated temperature and pressure. The seal structure includes a thermocouple embedded into the body of the elastomer of which the seal is comprised, and a protective sleeve, one end of which is formed to the annulus of the seal for containing and supporting the lead wires for the thermocouple. The seal may be formed by pressure molding, in a modified mold, two annular preformed seal halves preceded by appropriate positioning of the thermocouple and protective sleeve. The configuration of the present invention may desirably include placement of the sleeve perpendicular to the plane of the seal annulus to facilitate positioning the sleeve within the housing or fixture containing the seal. Write: **PAT-APPL-6-366 742**, NTIS.

Oxy and Thioaryl-Phenylated Aromatic Heterocyclic Polymers/324 **Polymères aromatiques hétérocycliques contenant des groupements oxy et thioaryl-phényles/324**

Filed April 8, 1982, by the Department of the Air Force. This invention relates to aromatic heterocyclic polymers. High temperature resins presently available have various drawbacks which limit their use in many applications. A serious one frequently encountered is the evolution of volatiles during the curing cycle, which makes it imperative that the entire curing cycle be carried out under pressure. For example, polyimides when cured release volatile components which cause gas bubble or void formation in the cured resin unless considerable pressure is maintained during the curing operations in order to prevent these undesirable results. When phenolic resins are cured, water is released which also causes void formation unless the curing reaction is carried out under pressure. Acetylene terminated compounds show promise for use in the preparation of matrix resins and adhesives for advanced aircraft and aerospace systems, and for other high temperature applications. These compounds can be polymerized thermally without the evolution of volatile by-products, thereby obviating the problem of void formation in composite structures and molded articles. Write: **PAT-APPL-6-366 744**, NTIS.

SAW Oscillator with Digital Compensation for Temperature Related Frequency Changes/324 **Oscillateur à ondes acoustiques de surface à compensation numérique pour des variations de fréquence liées à la température/324**

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed April 8, 1982, by the Department of the Air Force. This invention relates to surface acoustic wave (SAW) oscillators and in particular to digital compensation for temperature related frequency changes in such devices. The generation of precise frequencies by means of crystal controlled oscillators is an important electronics function. Recently, SAW oscillators have shown themselves to be a particularly cost effective implementation of this function. The SAW oscillator generally comprises a SAW substrate having input and output transducers

on its surface acoustic wave propagating surface. The transducers are positioned to provide a delay path that coincides with a low temperature coefficient of delay orientation. An amplifier connected between the input and output transducers completes, and provides power for, the oscillator circuit. The two main advantages of SAW devices over traditional bulk crystals are: (1) photolithographic fabrication on a single surface which is applicable to mass production, and (2) straightforward realization of devices operating directly at frequencies of 100-2000 MHz without the multipliers and filters necessary with bulk devices. Write: **PAT-APPL-6-366 746**, NTIS.

Removable Secondary Aircraft Fuel Enclosure/324

Contenant secondaire de carburant pour les avions/324

Filed April 15, 1982, by the Department of the Air Force. This invention relates generally to aircraft fuel tank structures, and more particularly to a secondary enclosure for an aircraft fuel tank configured to seal the tank against fuel vapor leakage into occupied aircraft compartments. In the observance of appropriate safety precautions and design criteria for aircraft fuel tanks, fuel carried within an occupied compartment of the aircraft must be enclosed in two separate (inner and outer) fuel vapor-tight containers, and the space between the two containers must be continuously drained and ventilated during flight. Certain high wing aircraft, such as the C17A, may have the center wing section within the fuselage configured to include an auxiliary fuel tank. In such instances, special safety precautions are taken in the structure of the aircraft to ensure that the center wing tank is designed to protect the aircraft occupants and cargo from contact with liquid fuel or fuel vapors. In this type of aircraft, it is desirable to enclose the entire wing box structure containing the center wing tank with a secondary enclosure separate from the tank structure itself. Write: **PAT-APPL-6-368 785**, NTIS.

Windblast Head Protector for Use During Pilot Ejection from an Aircraft/324

Dispositif pour protéger la tête du pilote contre le souffle d'air en cas d'éjection/324

Filed April 22, 1982, by the Department of the Air Force. This invention relates generally to pilot ejection systems for aircraft, and, more particularly, to a windblast head protector for use during pilot ejection from the aircraft. Crew safety is considered to be of utmost importance when designing todays high performance aircraft. This is of special consideration during times of aircraft malfunction which results in the necessity of the pilot 'bailing-out' of the aircraft. Consequently, many advances have been made in pilot ejection methods and systems. The ACES-II ejection seat manufactured by McDonnell Douglas Corporation is currently utilized in a majority of high performance aircraft such as the F-16, F-15 and A Unfortunately, high speed ejection can cause a variety of injuries to the ejecting crew member. Head and/or neck injuries to a crew member can occur as a result of conditions which may arise while the crew member ejects from the aircraft in an open ejection seat at high dynamic pressures. Write: **PAT-APPL-6-370 693**, NTIS.

Diffusion Barrier for Long Wavelength Laser Diodes/324

Barrière de diffusion pour diodes laser à grandes longueurs d'ondes/324

Filed April 27, 1982, by the Department of the Air Force. A discussion barrier is created in a n-type heterojunction layer adjacent to the active region of a semiconductor laser by doping the n-type layer with a periodic table group VI element. The diffusion barrier in the n-type layer prevents the migration of acceptors into that layer. The group VI elements are, in particular, sulfur (S), selenium (Se), and tellurium (Te). The acceptor of concern is zinc (Zn.) Write: **PAT-APPL-6-372 364**, NTIS.

Axial Flow Laser Cavity/324

Cavité laser à écoulement axial/324

Filed May 6, 1982, by the Department of the Air Force. An improved gaseous laser device is provided which comprises a generally tubular laser discharge tube having a laser window at each end thereof, each window disposed at an angle to the lasing axis of the device corresponding substantially to the Brewster's angle characteristic of the material comprising the windows, and including means directing substantially uniform flow of gaseous laser medium into and out of the discharge tube substantially at said angle and means providing a choked gaseous exhaust exit for canceling cavity disturbances within the device. Laser optics defining an optical resonant cavity of the laser device may be disposed external of the discharge tube and windows. Write: **PAT-APPL-6-375 621**, NTIS.

Delta Wing Nozzle Assembly for Chemical Lasers/324

Ajutage à ailettes en delta pour lasers chimiques/324

Filed May 26, 1982, by the Department of the Air Force. This invention relates generally to chemical lasers, and, more particularly, to a delta wing nozzle assembly for use within a chemical laser in order to increase the mixing rate between the reactive ingredients within the resonant cavity of the laser. The development of the laser has created a new area of technology which finds application in many systems already in existence today. For example, lasers can be found in the areas of optical communications, holography, medicine, cutting, calculating and in radar. The utilization of the laser in such areas

is in many instances dependent upon the amplification of the existing laser radiation. One type of laser which has rapidly gained acceptance in such areas as optical communications and optical radar where high output power is highly desirable is the chemical laser. The chemical laser refers to a laser in which the required population inversion necessary for laser operation is achieved directly by chemical reaction. An example of such a chemical laser is the HF or DF, continuous wave supersonic chemical laser. Write: **PAT-APPL-6-382 324**, NTIS.

Optoelectronic Weld Travel Speed Sensor/324

Capteur optoélectronique de la vitesse de formation de la soudure/324

Filed May 29, 1981, by the Department of the Army. The sensor of the present invention is adapted for use on the electrode holder of a manual arc welding apparatus. The sensor comprises a first optical fiber having a receiving end disposed in a first zone adjacent to the weld puddle produced by the arc welder so as to receive radiation indicative of the weld temperature in that zone, and a second optical fiber having a receiving end disposed in a second optical fiber having a receiving end disposed in a second zone rearward of the first zone so as to receive radiation indicative of the weld temperature in the second zone. Each optical fiber transmits received radiation to a respective photosensor, which produces an analog electrical signal in accordance with the level of the radiation. These two signals are processed and compared continuously to produce an output signal indicative of the travel speed of the weld bead produced by the manual arc welding apparatus. Write: **PAT-APPL-6-268 219**, NTIS.

Improved Sealing Tubulation and Method/324

Amélioration de l'emmanchage et de l'étanchéité des tubes/324

Filed May 27, 1982, by the Department of the Army. An enclosure for sealing components is sealed by a tubulation member having a narrowed cross-sectional width in one dimension. The narrowed dimension serves to minimize stresses at the tubulation interface when the enclosure is sealed by pinching the tubulation member. This allows a large tubulation member to be used and pinched-off closer than possible with a rounded tube. Write: **PAT-APPL-6-382 505**, NTIS.

Resonator Insensitive to Paraxial Accelerations/324

Résonateur insensible aux accélérations paraxiales/324

Filed June 10, 1982, by the Department of the Army. This invention relates to the field of piezoelectric resonators and more particularly to quartz crystal resonators that are highly insensitive to paraxial accelerations. Frequency perturbations are produced in thickness mode crystal resonators by acceleration-induced forces acting on the body of the resonator. These forces are distributed throughout the resonator volume and vary with the acceleration direction. For specific acceleration directions, the effect can be sharply reduced by changing the points of application of the mounting supports. When the acceleration direction is known in advance, positioning the resonator with respect to the direction minimizes the problem. In high shock and vibration environments, however, accelerations occur in arbitrary directions with ensuing large frequency shifts in the crystal resonance frequency. When the acceleration is arbitrarily oriented with respect to the resonator, no crystal cut or combination of mounting supports can by themselves produce cancellations of the frequency perturbations to the extent required. Write: **PAT-APPL-6-386 863**, NTIS.

Unidirectional Code for Interactive Map System/324

Code non directionnel pour système interactif de cartographie/324

Filed June 10, 1982, by the Department of the Army. A system for plotting information on maps and reading information therefrom comprising maps which have machine-readable codes on the backs thereof arranged to indicate the coordinates of the map. A stylus is adapted to be moved xxx the map surface to read the map coordinates by sensing the codes thereon. The novel unidirectional codes comprising codes bars all extending in the same direction permit the xxxx of simplified code sensing apparatus. Write: **PAT-APPL-6-386 865**, NTIS.

Self Contained Antenna Test Device/324

Dispositif autonome de vérification des antennes/324

Filed June 10, 1982, by the Department of the Army. Twin lead transmission lines are positioned in close coupling relationship to linearly polarized and planar 5 arrays of antenna radiating elements to provide a self contained instantaneous antenna test and measurement system. Near field energy from the transmission lines is coupled to the transversely arranged antenna dipole elements to permit testing without degrading antenna performance. Signals induced on the radiating elements are of uniform amplitude and linearly changing phase equivalent to those of a far field plane wave. Various tests such as antenna failure and performance characteristic measurements, including gain, pattern and phase difference, can be made automatically. A balanced power divider distributes Rf power equally to the twin lead transmission lines and a system processor controls phase shifter scanning elements and analyzes the various output parameters to provide the desired test and measurement information concerning the selected array of dipoles and components. Write: **PAT-APPL-6-387 098**, NTIS.

Two Loop Automatic Level Control for Power Amplifier/324

Commande automatique de gain à deux boucles pour amplificateur de puissance/324

Filed June 11, 1982, by the Department of the Army. The power supply potential applied to the final stage of an RF amplifier is modulated by means of an adaptive power supply. The power supply potential applied to the final RF amplifier is controlled by a first control loop in accordance with an error signal derived from a comparison of a signal corresponding to the weighted sum of the magnitude of the supply voltage applied and the current drawn by the final amplifier and the amplitude of the modulating signal. Additionally, an automatic level control circuit controls the level of the RF output signal in a second control loop in accordance with a comparison between the magnitude of the RF output of the amplifier and the amplitude of the modulating signal. Write: **PAT-APPL-6-387 307**, NTIS.

Dielectric Waveguide Reciprocal Ferrite Phase Shifter/324

Décaleur de phase réciproque en ferrite pour guide d'ondes diélectrique/324

Filed June 14, 1982, by the Department of the Army. A dielectric waveguide reciprocal ferrite phase shifter is provided for use in a dielectric waveguide transmission line. The phase shifter is comprised of a length of ferrite of the same cross-sectional dimension as that of the dielectric waveguide and in fact becomes a section of the transmission line. The length of ferrite bears a thin plastic layer on its top and bottom surface and metal plates on each piece of plastic. The length of this multilayer structure then has a wire coil wrapped around in order to provide a.d.c. magnetic biasing field along the length of the ferrite thereby enabling magnetization of the ferrite resulting in a reciprocal phase shift or change in electrical length within the structure. Write: **PAT-APPL-6-387 986**, NTIS.

Dielectric Waveguide Ferrite Resonance Isolator/324

Isolateur de résonance en ferrite pour guide d'ondes diélectrique/324

Filed June 14, 1982, by the Department of the Army. A dielectric waveguide ferrite resonance isolator capable of operating in the millimeter frequency range in a dielectric waveguide transmission line is disclosed. The isolator comprises a thin sheet of hexagonal ferrite material that has been affixed to a side of the dielectric waveguide and then placed between the pole pieces of an electromagnet in order to magnetize and fully orient the ferrite material. Write: **PAT-APPL-6-387 987**, NTIS.

Process for Developing a Negative Electron Resist/324

Procédé de développement pour un système "résiste" à électrons négatifs/324

Filed June 16, 1982, by the Department of the Army. A method of developing a negative electron resist for delineating a desired integrated circuit pattern upon a circuit substrate is disclosed for a negative resist consisting of a copolymer film of (poly(glycidyl methacrylate-co-styrene)) using a mixture of 1:1 chlorobenzene and 2- propanol as the developer. Write: **PAT-APPL-6-388 838**, NTIS.

Inhibited Barrier Non-Alloyed Ohmic Contacts/324

Contacts ohmiques non alliés à barrière inhibée/324

Filed June 17, 1982, by the Department of the Army. A non-alloyed ohmic contact for an epilayered semiconductor structure comprising a relatively thin barrier region of semiconductor material, which is a portion of a top layer of semiconductor material, and an outer contact layer of non-reactive metallization contiguous to the top layer. The barrier region is of a thickness of 20A or less and is formed between the metal-semiconductor interface and a planar donor region of relatively high dopant concentration with respect to the doping concentration of the remainder of the top layer. This is achieved by suspending the epitaxial growth, provided by the process of molecular beam epitaxy, of the top layer just prior to the termination of semiconductor growth whereupon dopant material of a relatively high concentration of like dopant atoms is deposited on the surface of the terminated top layer to obtain an area of high donor concentration in order of 10 to the 12th power donors per square centimeter, after which grow this momentarily restarted to provide a capping layer of semiconductor of 20A or less, after which a non-reactive layer of metallization is deposited on the semiconductor surface under vacuum in the same growth system to preclude the formation of intervening insulating oxide layer between the semiconductor and metal. Write: **PAT-APPL-6-389 206**, NTIS.

Method for the Identification and Purification of Human Lung Tumor-Associated Antigens (HLTAA) and Clinical Detection and Determination of These Antigens/324

Méthode d'identification, de purification, de détection clinique et de dosage des antigènes associés aux tumeurs pulmonaires chez l'homme (AATPH)/324

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed February 23, 1982, by the Department of Health and Human

Services. The invention comprises a method for the purification of a human lung tumor-associated antigen (HLTAA) specific to human lung tumors of diverse histological characteristics; serum levels of hLTAA correlate with lung tumor incidence, and appear to usefully discriminate between various stages of the malignancies. The invention further comprises an immunoassay predicated on purified hLTAA for the detection and quantitative determination of hLTAA in biological fluids, particularly blood serum, and diagnostic systems for clinical immunoassay procedures. Write: **PAT-APPL-6-351 588**, NTIS.

Magnetic Heat Pumping/324

Pompage magnétique de chaleur/324

Filed February 19, 1981, by NASA. The method of the invention employs ferromagnetic or ferrimagnetic elements, preferably of rare-earth based material, for example gadolinium, and preferably employs a regenerator. The steps of the method comprise controlling the temperature and applied magnetic field of the element to cause the state of the element as represented on a temperature-magnetic entropy diagram repeatedly to traverse a loop. The loop may have a first portion of concurrent substantially isothermal or constant temperature and increasing applied magnetic field, a second portion of lowering temperature and constant applied magnetic field, a third portion of isothermal and decreasing applied magnetic field, and a fouth portion of increasing temperature and constant applied magnetic field. Other loops may be four-sided, with, for example, two isotherms and two adiabats (constant entropy portions). Preferably, a regenerator may be employed to enhance desired cooling or heating effects, with varied magnetic fields or varying temperatures including three-sided figures traversed by the representative point. Write: **PAT-APPL-6-235 868**, NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate General, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113-1983, U.S.A.

High Voltage V-Groove Solar Cell/324

Pile solaire haute tension à sillons en V/324

Filed March 18, 1982, by NASA. A high voltage multijunction solar cell is disclosed. The cell is composed of a plurality of discrete voltage generating regions, or unit cells, which are formed in a single semiconductor wafer and are connected together so that the voltages of the individual cells are additive. The unit cells comprise doped regions of opposite conductivity types separated by a gap, V-shaped grooves are formed in the wafer and thereafter the wafer is oriented so that ions of one conductivity type can be implanted in one face of the groove while the other face is shielded. A metallization layer is applied and selectively etched away to provide connections between the unit cells. Write: **PAT-APPL-6-359 388**, NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate General, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113-1983, U.S.A.

Simplified DC to DC Converter/324

Convertisseur c.c. à c.c. simplifié/324

Filed April 14, 1982, by NASA. A dc to dc converter is disclosed which has a minimum number of components, output voltage regulation, and output current limiting without any circuits converting the output to any other circuits of the converter. The converter is comprised of a transformer having a primary winding through which current is directed in alternate directions by metal oxide semiconductor transistors connected between the primary winding and a dc source or battery. A secondary winding of the transformer is connected to a rectifying and filter circuit to provide unidirectional output current. Both windings of the transformer are carried on the respective outer legs of an E-core with the center leg of the core proving a leakage reactance. This leakage reactance has the same effect as placing an inductor in series with the rectifiers in output circuit. Write: **PAT-APPL-6-368 188**, NASA, Lewis Research Center, 2100 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate General, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113-1983, U.S.A.

Laser Resonator/324

Résonateur de laser/324

Filed June 5, 1981, by NASA. An optical resonator cavity configuration uses a unitary mirror with an oppositely directed convex reflective surface and a concave reflective surface disposed into one fold which concertedly reverses both ends of a beam propagating from a laser rod disposed between two total internal reflection prisms. The prisms are rigidly positioned with perpendicularly crossed virtual rooflines by a compact optical bed. The rooflines of the internal reflection prisms are arranged perpendicularly to the axis of the laser beam and to the optical axis of the optical resonator components. Write: **PAT-APPL-6-270 763**, NASA, Goddard Space Flight Center, Mail Code: 204, Greenbelt, Maryland 20771 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102-1366, U.S.A.

High Speed Multi Focal Plane Optical System/324

Système optique rapide à plusieurs plans focaux/324

Filed December 22, 1981, by NASA. An apparatus is disclosed for eliminating beam splitter generated optical aberrations in a pupil concentric optical system providing a number of spatially separated images on differential focal planes or sur-

faces. The system employs a buried surface beam splitter with spherically curved entrance and exit faces which are concentric to a system aperture stop. The entrance face is located in the path of a converging light beam directed to it from an image forming objective element which is also concentric to the aperture stop. Write: **PAT-APPL-6-333 535**, NASA, Goddard Space Flight Center, Mail Code: 204, Greenbelt, Maryland 20771 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102-1366, U.S.A.

Powder Fed Sheared Dispersal Particle Generator/324

Générateur de particules par cisaillement et dispersion d'un fluide chargé de poudre/324

Filed August 28, 1982, by NASA. A particle generating system is described which is capable of breaking up agglomerations of particles and producing a cloud of uniform, submicron-sized particles at high pressure and high flow rates. This is achieved by utilizing a tubular structure which has injection microslits on its periphery to accept and disperse the desired particle feed. By suppling a carrying fluid at a pressure, of approximately twice the ambient pressure of the velocimeter's settling chamber, the microslits operate at choked flow conditions. The shearing action of this choked flow is sufficient to overcome interparticle bonding forces, thereby breaking up the agglomerates of the particle feed into individual particles. Write: **PAT-APPL-6-297 488**, NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102-1366, U.S.A.

Induction Heating Gun/324

Pistolet chauffant à induction/324

Filed December 22, 1981, by NASA. A device for inductively heating and fusing thermoplastics is discussed. It includes an alternating current passing through a tank circuit, the inductor member of the tank circuit being wrapped around a curved pole piece of a ferromagnetic material. The magnetic flux arising within the inductor coil member flows to the ends of the pole piece and into a screen placed between the materials to be joined. The flux induces a current in the screen, and heat is generated to melt the thermoplastics together. Because only 30 to 150 watts of power are passed through the tank circuit, a wire which will remain cool under operational wattage may be selected, making air or fluid cooling unnecessary. Write: **PAT-APPL-6-333 536**, NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102-1366, U.S.A.

Heat Sealable, Flame and Abrasion Resistant Coated Fabric/324

Tissu revêtu thermoimperméabilisable, résistant aux flammes et à l'abrasion/324

Filed March 6, 1981, by NASA. A flexible, lightweight, air impermeable coated fabric is discussed which has excellent resistance to flame and abrasion. Heat or dielectric sealing is used. The coating is thermoplastic polyurethane compounded with flame retardant fillers. Write: **PAT-APPL-6-241 155**, NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate General, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201-3051, U.S.A.

Direct Current Ballast Circuit for Metal Halide Lamp/324

Circuit régulateur c.c. pour lampe aux halogénures/324

Filed September 14, 1981, by NASA. A direct current ballast circuit for a two electrode metal halide lamp is described. Said direct current ballast circuit includes a low voltage DC input and a high frequency power amplifier and power transformer for developing a high voltage output. The output voltage is rectified by diodes and filterd by inductor and capacitor to provide a regulated DC output through commutating diodes to one terminal of the lamp at the output terminal. A feedback path from the output of the filter capacitor through the bias resistor to power the high frequency circuit which includes the power amplifier and the power transformer for sustaining circuit operations during low voltage transients on the input DC supply is described. A current sensor connected to the output of the lamp through terminal for stabilizing lamp current following breakdown of the lamp is described. Write: **PAT-APPL-6-293 419**, NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate General, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201-3051, U.S.A.

Pulsed Thyristor Trigger Control Circuit/324

Circuit de commande d'impulsions de déclenchement pour thyristor/324

Filed November 30, 1981, by NASA. A trigger control circuit for producing firing pulses for the thyristor of a thyristor control system such as a power factor controller is described. The control circuit overcomes thyristor triggering problems involved with the current lag associated with controlling inductive loads. A phase difference signal is utilized in deriving a signal

for inhibiting generation of a firing pulse until no current is flowing from the preceding half cycle. Write: **PAT-APPL-6-325 932**, NASA, Marshall Space Flight Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial correspondence to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303-1290, U.S.A.

Thin Wire Pointing Method/324

Méthode de taillage de la pointe de fils minces/324

Filed November 17, 1981, by NASA. A method is described for forming sharp tips on thin wires, in particular phosphor bronze wires of diameters such as one thousandth inch used to contact micron size Schottky barrier diodes, which enables close control of tip shape and which avoids the use of highly toxic solutions. The method includes dipping and end of a phosphor bronze wire into a dilute solution of sulfamic acid and applying a current through the wire to electrochemically etch it. The humidity in the room is controlled to a level of less than 50%, and the voltage applied between the wire and another electrode in the solution is a half wave rectified voltage. The current through the wire is monitored, and the process is stopped when the current falls to a predetermined low level. Write: **PAT-APPL-6-322 316**, Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014-1377, U.S.A.

Acoustic Rotation Control/324

Commande sonore de rotation/324

Filed March 15, 1982, by NASA. A system is described for acoustically controlled rotation of a levitated object, which avoids deformation of a levitated liquid object. Acoustic waves of the same wavelength are directed along perpendicular directions across the object, and with the relative phases of the acoustic waves repeatedly switched so that one wave alternately leads and lags the other by 90 deg. The amount of torque for rotating the object, and the direction of rotation, are controlled by controlling the proportion of time one wave leads the other and selecting which wave leads the other most of the time. Write: **PAT-APPL-6-358 089**, Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014-1377, U.S.A.

A Method of Increasing Minority Carrier Lifetime in Silicon Web or the Like/324

Méthode de prolongation de la durée de vie des porteurs minoritaires dans un ruban de silicium ou dans une structure semblable/324

Filed March 31, 1982, by NASA. A silicon dendrite is grown as a ribbon forming two silicon layers which are separated by an interface layer which contains a certain large number of detects. Significant increase of minority carrier lifetime with homogeneous distribution at the outer surfaces of the two silicon crystal layers are achieved by processing the web in an atmosphere of a selected gas, e.g., oxygen, nitrogen, or an inert gas, for about 30 minutes to several hours, at a temperature preferably on the order of 900° to 1200°C. Write: **PAT-APPL-6-364 092**, Monte F. Mott, Patent Counsel, NASA Resident Legal Office, Mail Code: 180-601, 4800 Oak Grove Drive, Pasadena, California 91103 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014-1377, U.S.A.

A PZT Composite and a Fabrication Method Thereof/324

Méthode de fabrication d'un composite en PZT/324

Filed April 24, 1981, by the Department of the Navy. A PZT-polymer composite is fabricated so that an array of parallel PZT strands or rods are embedded in a mechanically compliant matrix of a polymer such as an epoxy. Such a composite has high values of g sub 33, g sub h and d sub h with comparatively little sacrifice in the value of d sub 33. Such a material is fabricated by extruding small strands or rods of PZT powder mixed with an organic binder. The extruded rods are then fired to obtain sintered PZT rods or strands. A hot isostatic (HIP) is sometimes used to density the sintered PZT rods. The PZT strands so obtained are embedded in an epoxy using two metallic plates or discs kept a certain distance apart by a supporting rod in order to embed the PZT strands in the epoxy to form a slug. The slug is then sectioned off to form PZT-polymer composite wafers in which sintered PZT rods are embedded parallel to one another. The wafers are then electrically poled in a direction parallel to the axes of the PZT strands to form transducers and the like. Write: **PAT-APPL-6-257 289**, NAVY.

Multiplexed MOS Multiaccess Memory System/324

Système de mémoire MOS multiplexé à accès multiple/324

Filed June 22, 1981, by the Department of the Navy. Multiaccess memory modules are each connected by means of a bus to a system address multiplexer and to a system data multiplexer/demultiplexer. Each module includes a multiaccess memory connected to the system address multiplexer through a component address demultiplexer and a single bus for being ad-

dressed. Each multiaccess memory is also connected to the system data multiplexer/demultiplexer through a component data multiplexer/demultiplexer and a single bus for reading or sensing the memory and writing data into the memory. The memory cells of the multiaccess memory components consist of capacitor storage cells, also known as metal oxide silicon (semiconductor) (MOS) capacitors. Write: **PAT-APPL-6-276 439**, NAVY.

Repairable Backshell Adaptor for Electrical Connector/324

Douille de réparation pour coquille de connecteur électrique/324

Filed December 21, 1981, by the Department of the Navy. The present invention relates to electrical cables having a connector on one or both ends and more particularly relates to a cable assembly which can be readily repaired in event of damage. A backshell adapter has a terminator which has a plurality of teeth engageable with teeth on the backshell of an electrical connector and a barrel threadedly engages threads on the backshell and holds the terminator and backshell together. The aft end of the terminator has a tapered surface and a clamping sleeve wedges a braided shield against the tapered surface. Write: **PAT-APPL-6-333 157**, NAVY.

Synthesis and Polymerization of Phthalonitrile Monomers Containing Multiple Phenoxy and Sulfone Linkages/324

Synthèse et polymérisation de phtalonitriles monomères contenant de nombreuses liaisons phénoxy et sulfone/324

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed January 7, 1982, by the Department of the Navy. Phthalonitrile monomers and polymers are easily and inexpensively synthesized to produce products having excellent thermal and oxidative stability, mechanical strength, adhesive strength, and low water absorptivity, together with exceptional toughness and flexibility. These are obtained by bridging phthalonitriles with aromatic nuclei linked by ether and/or sulfone nuclei prepared by reacting the product of a dialkaline bisphenate and 4,4'-dichlorodiphenyl sulfone with 4-nitrophthalonitrile. Write: **PAT-APPL-6-337 893**, NAVY.

Fabrication of Schottky Barrier Diodes on PbC12 PbS.5Se.5 Epitaxial Films/324

Fabrication de diodes à barrière de Schottky sur couches épitaxiales de $PbC1_2$ PbS.5Se.5/324

Filed March 17, 1982, by the Department of the Navy. This abstract discloses a process for preparing an infrared sensitive photodiode comprising the steps of: forming by vacuum deposition an epitaxial layer of a semiconductor alloy material to cover at least a portion of the surface of a substrate composed of an infrared transparent single crystal material which is an alkali halide or an alkaline earth halide; forming a layer of a lead halide which is PbC12, PbBr2, PbF2, or mixtures thereof on the epitaxial layer of semiconductor material by exposing the epitaxial layer to vapor of the lead halide in air for at least 6 hours wherein the lead halide vapor is produced by heating the lead halide at a temperature of from about 175°C to about 225°C; vacuum depositing Pb metal onto a portion of the epitaxial layer of semiconductor alloy material to form a non-Ohmic Pb metal contact; and forming an Ohmic contact on another portion of the epitaxial layer of semiconductor material. Write: **PAT-APPL-6-358 940**, NAVY.

Sensitized Epitaxial Infrared Detector/324

Détecteur à couche épitaxiale sensible à l'infrarouge/324

Filed March 17, 1982, by the Department of the Navy. An infrared sensitive photodiode which is made of an epitaxial layer of a semiconductor alloy which is a lead chalcogenide, a lead-tin chalcogenide, or a lead-cadmium chalcogenide grown on a single crystal substrate of an infrared transparent, electrically insulating material, an Ohmic contact deposited on the epitaxial layer, and a non-Ohmic Pb metal contact deposited on the epitaxial layer to form a Schottky barrier, the improvement comprising the inclusion of halide ions in the interface region between the non-Ohmic lead metal contact and the epitaxial layer of semiconductor material. Write: **PAT-APPL-6-358 941**, NAVY.

Heater for Ultra High Pressure Compressed Gas/324

Réchauffeur de gaz comprimé à très haute pression/324

Filed March 26, 1982, by the Department of the Navy. A pneumatic power supply for use in powering servo controls and actuators has a filament wound composite and aluminum ultrahigh pressure vessel containing helium within which there is mounted an internal pyrotechnic heat generating element to provide thermal energy to the system. The heater compensates for adiabatic cooling of the gas inventory during blowdown, i.e., during delivery of high pressure gas to power pneumatic servo controls and actuators in missiles. At the beginning of the blowdown, the heater element burns at a predetermined rate which adds heat to the compressed gas so that the gas temperature remains relatively constant, effectively increasing run time. The pressurized gas is delivered by means of a pressure regulator from the pressure vessel to the delivery system for use in the pneumatic control system. Write: **PAT-APPL-6-362 354**, NAVY.

Controlled Gas Generator System/324

Générateur de gaz commandé sélectivement/324

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed April 16, 1982, by the Department of the Navy. A controlled gas generator system is provided which has a reaction chamber, the reaction chamber having top and bottom ends. A bed of reactant material is disposed within the chamber intermediate its top and bottom ends. Liquids are located within the chamber, one of the liquids being nonreactive with the reactant. The liquids are dissimilar in specific gravity so that the liquids interface substantially along a cross-sectional plane of the chamber. With this arrangement, gas will be produced when the interfacial plane is vertically disposed on one side of the bed of reactant material, and gas will not be produced when the interfacial plane is vertically disposed on an opposite side of the bed of reactant material. Provision is made for selectively adjusting the vertical position of the interfacial plane above or below the bed of reactant material so that gas can be selectively generated. Write: **PAT-APPL-6-368 933**, NAVY.

Instantaneous Start and Stop Gas Generator/324

Générateur de gaz à démarrage et arrêt instantanés/324

Filed April 23, 1982, by the Department of the Navy. A gas generator is provided which can be selectively switched between reaction and nonreaction modes. The gas generator includes a reaction chamber which has top and bottom ends. The chamber contains reactive and nonreactive liquids, the nonreactive liquid having a greater specific gravity than the reactive liquid. A solid reactant member is provided. A device is provided for projecting the solid reactant member through the bottom of the chamber, thence through the nonreactive liquid, and thence into the reactive liquid for generating gas. Further, a device is provided for withdrawing the solid reactant member from the reactive liquid into the nonreactive liquid for terminating the generation of gas. Write: **PAT-APPL-6-371 142**, NAVY.

Interfering Noise Pulse Eliminator and Its Use/324

Description et méthode d'utilisation d'un dispositif de suppression d'impulsions de bruit brouilleur/324

Filed April 26, 1982, by the Department of the Navy. An apparatus and method removes interfering noise pulses from low-level radio-frequency signals through the application of a video-frequency circuit which causes detection of interfering pulses above an automatically and dynamically established threshold voltage level. Upon detection of an interfering pulse, a control signal activates a hold circuit causing the conventional radiometric circuit to be interrupted during the period of the occurrence of the interfering pulse, thereby blocking passage of the pulse, while simultaneously the voltage level of the video-frequency signal is held constant. Write: **PAT-APPL-6-371 706**, NAVY.

Fluorescence Quenching Technique for Scanning Visual Systems/324

Méthode d'évanouissement de la fluorescence pour systèmes d'affichage à balayage laser/324

Filed April 30, 1982, by the Department of the Navy. By using a fluorescer on the viewing surface of a visual screen and illuminating the screen with ultra-violet light, a bright display of the scene is achieved when the laser scan system is operated in the negative mode to quench the fluorescence at spots on the screen that correspond to darker areas in the scene. Write: **PAT-APPL-6-373 756**, NAVY.

Helmet Mounted Display Projector/324

Projecteur d'affichage monté sur casque/324

Filed May 3, 1982, by the Department of the Navy. A helmet mounted projector offset and frame scanning capabilities for a dual channel computer generated image simulation system. The projector receives full color lasers from each channel via a separate optical path, including galvanometer controlled line scan offset mirrors designed to provide eye tracking capabilities, and combines said channels along a single optical axis to provide coordinated frame scanning for the complex image produced by the combined rasters. Write: **PAT-APPL-6-374 575**, NAVY.

Synthesis of the Isomeric Aminotetranitrotoluenes/324

Synthèse d'aminotétranitrotoluènes polymères/324

Filed May 11, 1982, by the Department of the Navy. Novel aminotetranitrotoluenes, aryl compounds with four nitro groups introduced into the aromatic nucleus, are prepared by nitration of an appropriate aminodinitrotoluene precursor in mixed acid solution, followed by treatment with anisole. The inventive compounds are more energetic than TNT while imparting other desirable properties to explosives made therewith, such as high density, good thermal and chemical stability, stability towards impact and shock initiation, and improved detonation properties including detonation velocity and detonation pressure. Write: **PAT-APPL-6-377 119**, NAVY.

Fresnel Lens in an Improved Infinity Image Display System/324

Lentille de Fresnel pour un système amélioré de visualisation d'images à l'infini/324

Filed May 20, 1982, by the Department of the Navy. A fresnel lens employs a design that reduces the transmission of stray light to a viewer located at its focal point, said design requiring directional undercutting of selected facets of the lens so as to align the directionally undercut nonimaging surface parallel to the viewer's line of sight. The facets of the lens are arcuately shaped to yield a closer approximation to a glass lens. The lens is of particular use in a visual image display system. Write: **PAT-APPL-6-380 171**, NAVY.

Licensing Opportunities Through Control Data Worldtech, Inc., U.S.

The following technologies are offered for manufacture under license in Canada. When requesting additional information, please quote the reference number. Write: Ms. Lila B. Bates, Manager — Services, Control Data Worldtech, Inc., 7600 France Avenue So., Edina, Minnesota 55435 — Telephone: (612) 893-4650 and send a copy of your initial correspondence to Canadian Consulate General, 15 South Fifth Street, Minneapolis, Minnesota 55402-1078.

General Purpose Microprocessor/324

American manufacturer offers the licensing rights to a Canadian company to assemble, and in time, become a complete fabrication facility for its general-purpose microprocessor which uses a Motorola MC68000 Chip. This small computer system is designed for use in distributed data processing applications which require the performance of the 16/32-bit Motorola MC68000 Very Large-Scale Integrated (VLSI) chip. The MC68000 is used for this system because the style of its architecture is that of a large machine, offering raw computing power and 32-bit registers. The microprocessor's VLSI circuitry gives maximum reliability plus low maintenance and low manufacturing costs. A high-level programming language, compiled on a CYBER 170 computer under the NOS operating system, provides for easy programming. The microprocessor's flexible, modular set of configurations makes it adaptable to a variety of applications. The hardware support allows for data communications with either dedicated lines or switched networks, An IEEE 796 multibus is used for bus definition and card connector format. The card size is large enough to accommodate the needed circuitry while also being small enough to fit small business systems. Prototypes of the microprocessor have been built and tested and are operational. Marketing rights are available worldwide. Reference Number T7995.

Commercialized Proton-Induced X-Ray Emission Analysis/324

American manufacturer offers a Canadian company the licensing rights to perform automatic PIXE analysis by a

Possibilités d'acquisition de licences par l'intermédiaire de la Control Data Worldtech, Inc., É.-U.

Les techniques suivantes sont proposées pour la fabrication sous licence au Canada. Lors de la demande de renseignements supplémentaires, veuillez citer le numéro de référence. Écrire à: Ms. Lila B. Bates, Chef de service, Control Data Worldtech, Inc., 7600 France Avenue So., Edina, Minnesota 55435 — Téléphone: (612) 893-4650 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 15 South Fifth Street, Minneapolis, Minnesota 55402-1078.

Microprocesseur à usages multiples/324

Un fabricant américain offre à une société canadienne les droits de licence pour l'assemblage et éventuellement pour la fabrication complète de son microprocesseur à usages multiples, basé sur une puce Motorola. Ce petit ordinateur est destiné aux applications de traitement réparti qui nécessitent les performances de la puce VLSI (intégration à très grande échelle) MC 68000 de Motorola. L'utilisation de la puce MC 68000 est rendue nécessaire par l'architecture du système, conçu comme un ordinateur à grande puissance, avec des registres à 32 bits. Les circuits VLSI du microprocesseur offrent une fiabilité maximale et un entretien réduit ainsi qu'un faible coût de fabrication. Un langage de programmation à haut niveau, compilé sur un ordinateur CYBER 170 avec un système d'exploitation NOS, facilite la programmation. Le microprocesseur s'adapte aisément à de nombreuses applications, grâce à un jeu de configurations souple et modulaire. Le matériel associé permet de transmettre les données par des liaisons spécialisées ou un réseau commuté. La définition du bus et le format de connexion sont basés sur le bus multiple IEEE 796. Les cartes sont suffisamment grandes pour contenir les circuits nécessaires sans dépasser le format des petits ordinateurs d'affaires. Des prototypes du microprocesseur sont maintenant opérationnels. Les droits de commercialisation sont disponibles pour le monde entier. Numéro de référence T7995.

Méthode commerciale d'analyse par émission de rayons X produite par protons/324

Un fabricant américain offre à une société canadienne les droits de licence pour effectuer des travaux d'analyse auto-

proton-induced, X-ray emission which determines the elements making up a sample and which is an accepted technique that provides reliable identification of all elements heavier than sodium. This technique has now been combined with a computer program which automatically performs the element identification. It takes approximately four minutes to analyze a sample. It has applications in medicine, monitoring hazardous wastes, and checking utility plant emissions, among others. Reference Number T10581.

matique par émission de rayons X (PIXE) produite par protons qui permettent de déterminer les éléments composant un échantillon. Il s'agit d'une technique admise et fiable d'identification de tous les éléments plus lourds que le sodium. Cette méthode vient d'être associée à un programme informatique qui identifie automatiquement les éléments. L'analyse d'un échantillon prend environ quatre minutes. Les applications se retrouvent, entre autres, en médecine, dans la surveillance des déchets dangereux et le contrôle des émissions d'entreprise de distribution publique. Numéro de référence: T10581.

Economizer Reduces Electricity Waste by Induction Motors/324

American inventor offers licensing rights to a Canadian company under issued and pending patents in several countries for an economizer device to be marketed worldwide on which substantial financial and marketing capabilities, as well as product development expertise, are required. Conventional induction motors maintain full voltage to the motor regardless of the load on that motor. This device allows the electrical energy supplied to the motor to be a function of the load; that is, the sine wave of voltage supplied to the stator is modified to suit existing load conditions. The technology feeds full power to the motor at start-up to assure full torque; after start-up, though, it passes over to a mode of supplying power in proportion to load. The technology reduces energy waste by single-phase motors by up to 95 percent and by three-phase motors up to 85 percent. It was devised by a respected electronics expert. The Office of Energy-Related Inventions (OERI) National Bureau of Standards has examined the technology and found it both technically sound and superior to similar energy-saving devices for electrical motors. Reference Number T10586.

L'Economizer réduit le gaspillage d'énergie électrique dans les moteurs à induction/324

Un inventeur américain offre, à un fabricant canadien, les droits de licence d'un économiseur d'énergie électrique breveté ou en instance d'acceptation dans plusieurs pays. Le fabricant de l'Economizer devra disposer de ressources financières appréciables ainsi que de possibilités de développement et de commercialisation à l'échelle mondiale. Dans les moteurs à induction ordinaires la pleine tension d'alimentation est appliquée aux bornes, quelle que soit la charge. L'Economizer permet une alimentation du moteur en fonction de la charge; c'est-à-dire que l'onde sinusoïdale de tension appliquée au stator est modifiée en fonction de la charge. La technique employée consiste à fournir la puissance totale au démarrage pour obtenir un couple maximal. Cependant, une fois le moteur lancé, le dispositif d'alimentation règle la puissance consommée proportionnellement à la charge. Le gaspillage d'énergie électrique est ainsi réduit jusqu'à 95% dans les moteurs monophasés et jusqu'à 85% dans les moteurs triphasés. Cette technique est l'oeuvre d'un expert reconnu en électronique. Après avoir examiné la technique en question l'Office of Energy-Related Inventions (OERI) du National Bureau of Standards l'a trouvée valable et supérieure à celle des dispositifs du même genre déjà sur le marché. Numéro de référence T10586.

Solids-Draining Screw for Plastic Extruders/324

American R&D organization seeks a Canadian licensing or joint venture manufacturing affiliate for its new patented extruder screw for plastics which keeps the melted plastic separate from the unmelted plastic to reduce energy consumption by the extruder and prevent the already-melted plastic from undergoing undesirably high sheer forces. In applications thus far, this solids-draining screw, which fits all existing extruders, has saved up to 93 percent of the energy used by extruders and has in some cases doubled production. It works by channelling unmelted plastic back upstream for recycling. This relieves the force on the melted plastic and also allows the screw to be designed for increased pumping capacity and less energy consumption. Marketing rights are available outside the continental U.S.A. Transfer of the technology will be done through delivery of technical literature and intensive training courses and manuals. Patents are issued in the U.S.A., Japan, Canada, U.K. Brazil and Mexico. Reference Number T10594.

Vis de drain — solide pour boudineuse à plastique/324

Un organisme de R-D américain recherche une compagnie intéressée à fabriquer sous licence ou en association sa nouvelle vis brevetée de boudineuse pour plastique. Cette vis permet de séparer le plastique fondu du plastique solide réduisant ainsi la consommation en énergie de la boudineuse tout en évitant que le plastique fondu soit soumis à des forces de torsion excessives. Jusqu'à présent, cette vis, qui peut être utilisée avec toutes les boudineuses, a permis d'économiser jusqu'à 93 pour cent la consommation en énergie et, dans certains cas, la production a doublé. Elle repousse à contre courant le plastique non fondu, ce qui permet de le réutiliser. Cela atténue la force appliquée au plastique fondu et permet également d'augmenter la capacité de pompage de la vis tout en diminuant la consommation en énergie. Les droits commerciaux peuvent être acquis par des entreprises à l'extérieur des États-Unis. Le transfert de technologie comprend l'envoi de documents techniques, des cours de formation intensifs et des manuels. Les brevets existent pour les États-Unis, le Japon, le Canada, la Grande Bretagne, le Brésil et le Mexique. Numéro de référence T10594.

Integrated Technology Centers for Custom Very Large-Scale Integrated (VLSI) Design and Production/324

American manufacturer offers the Canadian manufacturing and worldwide (except U.S.A.) marketing rights to an integrated technology center (ITC) which bridges the gap between what is possible with the technology of VLSI circuits and the end user, especially the low-volume user (fewer than 10,000 pieces) who has difficulty reconciling production needs with the cost of in-house custom VLSI circuit design. An ITC provides training in VLSI circuit design, computer-aided design (CAD), and low-cost prototypes of custom VLSI circuits, plus other services to the low-volume user. It is, in effect, a turnkey VLSI circuit design center that may provide the ability to go from simple electronic assembly to a higher level of the technology. A firm which has already established a successful ITC in the United States offers the license to establish other ITC's in the rest of the world. A license includes training, the services of a teaching engineer, prototype fabrication services, etc. Reference Number T10939.

Centres de technologie intégrés pour la conception et la production de circuits sur-mesures en technique VLSI/324

Un fabricant américain offre aux fabricants du Canada et du monde entier (à l'exclusion des É.-U.) les droits de commercialisation d'un centre de technologie intégré (ITC). Les ITC permettent de combler le vide qui sépare la technologie des circuits intégrés des besoins réels des utilisateurs, surtout pour de faibles volumes (moins de 10 000 unités), lorsqu'il est difficile de justifier en production le coût des circuits VLSI réalisés sur mesure par l'utilisateur. L'ITC fournit une formation pour les circuits VLSI et pour la conception assistée par ordinateur (CAO). Les ITC permettent de réaliser à faible coût des prototypes de circuits VLSI et offrent de nombreux avantages pour les utilisateurs de petites séries. L'ITC constitue en fait un centre de conception de circuits VLSI offrant toutes les possibilités allant du simple montage électronique à une technique avancée. Une société qui a déjà lancé avec succès un ITC aux États-Unis offre une licence pour l'établissement d'autres ITC dans le reste du monde. La licence comprend la formation, les services d'un ingénieur chargé de l'enseignement, la fabrication de prototypes, etc. Numéro de référence T10939.

Photovoltaic Equipment/324

American company founded in 1976, offers a Canadian company the manufacturing and marketing rights for photovoltaic cells which convert sunlight directly into electricity. The process reduces solar cell fabrication to only five steps and maintains quality while reducing manufacturing time. The firm makes a wide range of standard photovoltaic products and also can design and produce customized equipment to fit special applications. In addition, it makes a full line of accessory products — everything from batteries and frames for solar cells arrays to voltage regulators. The standard modules are a laminate with a tedlar sub-stratum and a faceplate of tempered sunadex, completely sealed against the environment. A variety of module frame configurations is available. The licensee will receive: a start up inventory; documentation for the manufacture and installation of these solar cell products and marketing guidance. License of this technology is available worldwide except for Saudi Arabia, China, Italy and Pakistan. The cost is a lump sum payment and a royalty. Reference No. T10943.

Matériel photovoltaïque/324

Une société américaine fondée en 1976 offre à une société canadienne les droits de fabrication et de mise en marché de cellules photovoltaïques qui convertissent directement la lumière du soleil en électricité. Le procédé ramène à cinq le nombre d'étapes de fabrication des cellules solaires et maintient le même niveau de qualité tout en réduisant la durée de fabrication. De plus, cette société fabrique une gamme étendue de produits photovoltaïques de grande série et peut aussi concevoir et fabriquer sur demande du matériel hors-série adapté à ces applications spéciales. Elle fabrique aussi une gamme complète d'accessoires, depuis les batteries et châssis des cellules solaires jusqu'aux régulateurs de tension. Les modules grande série sont formés d'un stratifié comportant un substrat en tedlar et une plaque de protection en sunadex trempé, complètement imperméable aux conditions environnementales. Il existe plusieurs configurations de châssis des modules. Le preneur de licence recevra un inventaire de départ, la documentation nécessaire à la fabrication et l'installation de ce matériel à cellules solaires et des conseils sur la mise en marché. Les droits de licence de ces techniques sont disponibles dans le monde entier, sauf en Arabie Saoudite, en Chine, en Italie et au Pakistan. Le contrat doit prévoir un paiement forfaitaire et des redevances. Numéro de référence: T10943.

Licensing Opportunities Through Georgia Tech Research Institute, U.S.

The following licenseable inventions are available from the Georgia Institute of Technology. Interested Canadian manufacturers wishing to ascertain terms of the agreement, manufacturing and marketing rights should write, quoting the GTRI Records of Invention number to: Mr. Richard P. Dobb, Georgia Tech Research Institute, Administration Building, Atlanta, Georgia 30332, telephone: (404) 894-4812. A copy of the initial correspondence should be sent to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, N.W., P.O. Box 56169, Atlanta, Georgia 30303-1290, U.S.A.

Possibilités d'acquisition de licences par l'intermédiaire du Georgia Tech Research Institute, É.-U.

Le Georgia Institute of Technology offre les droits de licence pour les inventions suivantes. Les fabricants canadiens intéressés à connaître les conditions de l'entente et à acquérir les droits de fabrication et de commercialisation sont priés d'écrire, numéro de dossier de l'invention du GTRI en en-tête, à: M. Richard P. Dobb, Georgia Tech Research Institute, Administration Building, Atlanta, Georgie 30332, tél.: (404) 894-4812. Faire parvenir une copie de la correspondance initiale au Consulat général du Canada, 900 Coastal States Building, 260 Peachtree Street, N.W., P.O. Box 56169, Atlanta (Georgie) 30303-1290 (É.-U.).

Tritiation of Molecules Using High Energy Tritium/324

Tritiation de molécules à l'aide d'un faisceau de tritium à haute énergie/324

GTRI Record of Invention 615NCS, U.S. Patent 4,313,911 and Great Britain. A general method for tritiating proteins, peptides, and other nonvolatile organic compounds which contain hydrogen. A carefully controlled particle beam composed of tritium ions and molecules is accelerated into a sample target within a vacuum chamber. The method has been used to tritiate proteins such as elastase, thermolysin, ribonuclease, pancreatic trypsin inhibitor, and elastin. Small organic molecules such as the peptide aldehydes leupeptin and antipain have also been tritium labeled. The major reaction pathway is simple tritium for hydrogen exchange. The ion beam method is a mild procedure for the general tritium labeling of fragile protein macromolecules and other sensitive biological molecules. The procedure is swift, mild and yields pure products which require fairly simple workup procedure to yield usable products. The procedure has been successful with molecules which could not be conveniently labeled by any other method. The ion beam tritiation method is fully operational at Georgia Tech.

Rotary Recycling Device for Recovery of Clean Pyrolysis Off-Gases/324

Dispositif de recyclage rotatif servant à récupérer des gaz propres des rejets de pyrolyse/324

GTRI Record of Invention 636NC, U.S. Patent 4,278,450. A method for stripping entrained organic vapor and solid particulate matter from a pyrolytic off-gas stream. The off-gas is introduced at the top of a conical chamber having a variable speed "squirrel cage" rotor at its top. The wet, dirty, off-gas is drawn into the rotor from below and impinged on the chamber wall which causes part of the organic vapor to condense and flow to the chamber bottom, thereby cleaning the chamber walls. A portion of the impinged gas is recirculated through the rotor while the remainder exists at the chamber bottom. The ratio of recycled gas to through gas is controlled by the speed of the rotor. Heating and cooling coils on the chamber walls are operable to control the rate of condensation. Cleanup of any wet, dirty gas stream from pyrolyzers, gasifiers, condensers, grease traps can be accomplished using the device. This device removes aerosol particles from wet, greasy smokes with a minimal expenditure of energy and is not susceptible to the blockage encountered with filters, packed scrubbing towers, etc. It is simple, rugged, self cleaning, and inexpensive to construct and operate. A prototype has been built and tested.

Thermochemical Conversion of Biomass to Syngas via an Entrained Pyrolysis/Gasification Process/324

Transformation thermochimique de la biomasse en gaz combustible par pyrolyse et gazéification dans un courant gazeux/324

GTRI Record of Invention 639NC. The dried biomass is pyrolyzed in an entrained flow reactor by hot conveying gas. The products, char and oil, are separated from the gas product. The char and oil are gasified in a second entrained flow reactor using oxygen and steam to produce syngas, a mixture of hydrogen and carbon monoxide. The pyrolytic gas is used to dry the input biomass. The process can be used to convert different types of biomass to syngas, a medium heating value gas and a feedstock for the production of alcohols, ammonia and organic chemicals. Examples of biomass are agriculture and forestry residues. Advantages: capability for high throughput, high thermal efficiency, ease of make up, low operating and maintenance costs, and minimum environmental impact. Design of pyrolysis unit is nearing completion. Construction is scheduled for completion mid-1982. A U.S. Patent Application has been filed.

Georgia Tech Spiral Concentrator — A Simple Low Cost Point Focus Solar Energy Concentrator Formed by Winding a Flat Continuous Spiral/324

Concentrateur à spirales Georgia Tech — Un concentrateur d'énergie solaire à localisation par point, simple et bon marché, constitué d'un enroulement de tube plat en spirale/324

GTRI Record of Invention 643NC. The Georgia Tech Spiral Concentrator is based on Fresnel principles and cut from flat reflective material and attaching it to a simple, open, planar support frame at selected points. The computer-generated spiral and attachment points pattern can be chosen to have a concentration ratio from one to over 2000, and any focal length to diameter ratio. The reflector can simulate a dish reflector or a lens. The device can provide concentrated solar energy for industrial process heat systems, distributed electric power systems, photovoltaics, enhanced oil recovery, cooking, shaft work for water pumping, absorption refrigeration. The manufacture of this concentrator is much simpler than for conventional, point focus reflectors. The concentrator and its frame can be produced using materials that are inexpensive and light weight. Several prototypes have been built and tested. A U.S. Patent Application has been filed, Serial Number 137,833; foreign patent protection is being sought.

Sintered Solar Cell with Nearly Single Crystal Particles/324

Pile solaire en particules quasi monocristallines frittées/324

GTRI Record of Invention 648NC. Nearly single crystal particles are oriented in electric field, cast, and sintered in a conductive oxide matrix to form solar cell. The invention is designed primarily for use as a low cost solar cell. The design incorporates low cost production techniques and an efficiency approaching that of single crystal cells. No material is lost in slicing and polishing.

Safety Alarm for Woodburning Stoves and Furnaces/324

Système d'alarme pour poêles et fournaises à bois/324

GTRI Record of Invention 650NC. The alarm system is activated when stove overheating or a chimney fire occurs, to alert occupants to danger. The device is intended for use with residential wood stoves or furnaces. It features low manufacturing costs and dependable construction, will not corrode or degrade and offers variable temperature sensing. A prototype has been built and tested. A U.S. Patent Application has been filed, Serial Number 122,474.

A Method of Producing Alcohol-Water-Hydrocarbon Solution by Chemical Addition/324

Production par addition chimique d'une solution d'alcool-eau-hydrocarbure/324

GTRI Record of Invention 655C. This invention permits the formation of alcohol-water-hydrocarbon solution by chemical addition. The method allows a 95% ethanol-5% H_2O to be used in making Gasohol. The need for absolute alcohol is eliminated in the production of Gasohol. The concept has been demonstrated in the laboratory.

Multi-Position Waveguide Switch/324

Sélecteur multiposition pour guide d'ondes/324

GTRI Record of Invention 656C. This invention discloses a high speed waveguide switch, pneumatically operated, permitting three switch positions: either/or/and switching, or a + b, b + c, or c + d switching capabilities. The switch operates at a very high speed. It is compact and programmable and can be used for switching feeds on multiple feed antennas. Nine switches have been in field operation for over a year. A U.S. Patent Application has been filed, Serial Number 224,371.

Feedstock Cooled Solar Still/324

Distillateur solaire/324

GTRI Record of Invention 659NC. Essentially the invention consists of a slightly modified, conventional flat bed solar still. Feedstock is admitted through closed tubes, which also serve as condensers for the distillate. Troughs located below the tubes serve as reflectors and as conduits to lead the condensed distillate to a collecting vessel. An osmotic pressure device may be added to reduce the energy required to pump incoming feedstock. Just about any solar distillation application can profit from the device. It also has some potential for concentrating farm-fermented alcohol for fuel or beverage use. The device has higher efficiency than conventional solar stills, as the latent heat of distillate condensation is used to preheat the incoming feedstock. The osmotic pressure pumping system reduces power requirements and allows long periods of unattended operation.

Method for Utilizing Gas-Solid Dispersions in Thermodynamic Cycles for Power Generation and Refrigeration/324

Méthode permettant d'utiliser la dispersion de particules solides dans un gaz au cours des cycles thermodynamiques pour produire de la chaleur et du froid/324

GTRI Record of Invention 668NC, U.S. Patent 4,321,799. Heat is transferred from a first body to a second body and provides power by carrying a thermodynamic fluid comprising a dispersion of a particulate solid in a gas around a thermodynamic cycle or cycles involving the expansion and contraction of the thermodynamic fluid. Reverse cycles are used to provide refrigeration. The invention is useful in any application where cooling and refrigeration are required. Equipment will be less expensive to operate than conventional equipment and display increased efficiency. The concept has been demonstrated in the laboratory.

Method for Deodorizing and Disinfecting Air and Filter/324

Méthode pour désodoriser et désinfecter l'air et les filtres/324

GTRI Record of Invention 669NC. The system consists of a supported chemical oxidant bed mounted in an air supply duct together with means for regenerating the chemical oxidant in situ. In one embodiment the oxidant is regenerated by ozone from a generator with controls to prevent excess ozone from accumulating. In the second embodiment the spent oxidant is washed from the bed and replaced by fresh (regenerated) oxidant. The spent oxidant is regenerated off line for recycle to an active bed. The purpose is to remove or reduce the concentrations of offensive odors and pathogens in recirculated building air. It is used in densely populated buildings. Advantages: Reduces the demand for make-up air and the amount of energy required for heating and cooling a building. In situ regeneration, whether continuous or intermittent, reduces the labor cost and the need for interruption of operation. In addition, the system is relatively cheap and simple to fabricate, install, and maintain. A U.S. Patent Application has been filed, Serial Number 215,269.

Dish Antenna/324

Antenne parabolique/324

GTRI Record of Invention 672NC. This patent describes a parabolic dish antenna for inexpensive satellite earth stations, with a unique dish support structure. This support structure is simple, inexpensive, and allows for simple mounting to a pedestal. It can be built inexpensively and mounted easily. The design is ready for production. A U.S. Patent Application has been filed, Serial Number 209,327.

Automatic Music Transcriber/324

Transcripteur automatique de musique/324

GTRI Record of Invention 678NC. The invention consists of an analog processor working in concert with a computer to transcribe music automatically for use by musicians, record companies, orchestras, and universities. This invention does not require piano keyboard entry.

Wireless Intrusion Alarm System Using Peripheral Transponders/324

Système d'alarme anti-effraction sans fil avec répondeurs périphériques/324

GTRI Record of Invention 680NC. A unique design for a wireless intrusion alarm system without the use of radio waves. The system is suitable for home, business, and apartment use as intrusion/fire alarms. No wiring is necessary, and in addition the device is not subject to false alarms caused by electromagnetic interference, as are most wireless systems.

Automatic Volume Control/324

Commande automatique de volume/324

GTRI Record of Invention 693NC. This device automatically adjusts the volume of a radio, TV, etc. to compensate for background noise. The noise sensing device listens at any audio frequency without listening to the controlled device's output. Used with radios and TVs, this inexpensive feature will adjust the sound level much the same way that an automatic brightness control adjusts a TV picture to compensate for room ambient light level. A working model has been built.

Steam Injection System for Control of Wood Gasifier/324

Système d'injection de vapeur pour régulariser un gazogène à bois/324

GTRI Record of Invention 702NC. A process for injecting steam into a gasifier independently of the air blast. The system produces superheated steam to raise reaction rates. Can be used with updraft coal or wood gasifiers. Decreased steam use is possible with the system, as well as higher reactivity, elimination of dewpoint condensation in mixed air/steam systems. The process is currently in use on the Georgia Tech wood gasification pilot plant. A U.S. Patent Application has been prepared.

Feed and Level Detection System for an Updraft Wood Gasifier/324

Système d'alimentation et de détection du niveau pour un gazogène à bois à tirage par le haut/324

GTRI Record of Invention 703NC. A feed system for gasification equipment which allows feeding of solid fuel to a reactor while setting bed height and level detection by external means. Can be used with updraft gasifiers and similar solid/gas reactors. External control gives higher reliability and lower cost. The process is currently in use on the Georgia Tech gasifier pilot plant.

Air-Cooled Grate and Ash Removal System for Wood Gasifier/324

Système d'évacuation des cendres, à grille, refroidi à l'air, pour les gazogènes à bois/324

GTRI Record of Invention 704NC. A grid system for fixed and fluid bed gasifiers and combustors which allows free flow of ash for disposal while allowing low cost materials of construction in a hot, corrosive environment. The bed which is air-cooled designed allows use of common steel construction; ash is withdrawn by simple means and pre-cooled before disposal. The system combats slagging and clinkering. The device is currently in use on the Georgia Tech wood gasification pilot plant.

Manual Wheelchair Wheel with Integral Anti-Rollback Capability/324

Roue de fauteuil roulant non motorisé avec mécanisme anti-recul/324

GTRI Record of Invention 705C. This wheelchair wheel resembles a large diameter roller bearing with three functional groups: the rim, on which the tire and roller modules are mounted; the roller modules, which contain the anti-rollback mechanism and its controls; and the track on which the rollers ride. When rolling forward the wheel behaves in a normal manner. When the wheel begins to roll backwards the roller modules immediately lock, preventing further rotation. This wheel can be easily retrofitted to existing wheelchairs to prevent unwanted rollback when climbing inclined surfaces. It places the control of this capability in the users hands at all times. This spoke-free design is virtually maintenance free and eliminates the need for bearing or spoke replacement or periodic spoke tuning. A prototype has been installed and tested. A U.S. Patent Application has been filed, Serial Number 268,831. The U.S. Government has rights to this invention persuant to Contract Number V508P-587, awarded by the Veteran's Administration.

Microwave Illuminator for Thawing Frozen Plasma/324

Dispositif de rayonnement hertzien pour dégeler le plasma congelé/324

GTRI Record of Invention 709C. The invention consists of a dielectric-loaded horn antenna (illuminator) with an aperature area 45% greater than the flat surface area of the standard fresh-frozen plasma storage bag (Fenwell 4R1915). The invention is suitable for thawing plasma volumes up to 250 cc from −80° to +30°C with no "hot spots" or frozen regions in less than ten minutes. The subject invention provides thawing which is uniform, dry, and sterile, thus avoiding port sterility problems associated with water baths. It also reduces the time required for thawing by up to a factor of five. A prototype of the invention has been developed, tested and delivered to the Naval Ocean Systems Center.

Screw-Holding Hex Key/324

Clef Allen avec griffes de retenue/324

GTRI Record of Invention 714NC. This invention is a hex key ("Allen" wrench) or similar type of wrench capable of holding a screw so that the screw may be easily started. The screw-holding feature is a modification to an existing design and can be brought about in a number of ways. The hex key can be used by mechanics, technicians, assemblers, and general consumers. The device can hold a screw made of any material. Presently, the only similar tool available is a magnetic wrench capable of holding carbon steel (non-stainless) screws only.

Formed Biomass Fuel/324

Combustible à base de biomasse formé/324

GTRI Record of Invention 715NC. The subject invention discloses a method for forming wood waste into uniform shapes. The resulting fuel is suitable for residential and industrial applications. The method simplifies handling and increases combustion efficiency. Laboratory testing of the fuel has been completed.

High Performance, Obstacle-Climbing, Robotic Vehicle for the Physically Handicapped/324

Véhicule robotisé très performant pour personnes handicapées, capable de franchir des obstacles/324

GTRI Record of Invention 716C. The invention consists of a vehicle capable of climbing curbing and other obstacles over

15 cm without the use of ramps. Can be used by physically handicapped persons as transportation, but it could also be used in a wide range of manned or remote-controlled industrial applications requiring a stabilized platform and obstacle climbing capabilities. Four drive modules and a microprocessor system gives the vehicle unique mobility characteristics and a high degree of maneuverability. A model of the control system is being built.

Programmable Approach Timer for Aircraft Pilots Making IFR Approaches/324

Chronométreur d'approche programmable à l'intention des pilotes effectuant des manoeuvres d'approche IFR/324

GTRI Record of Invention 725NC. A timing device for aircraft pilots that is preprogrammed and contains unconventional control/output means to prevent timing errors during IFR approaches. Intended for use in single-pilot IFR aircraft, the timer eliminates many common errors in approaches, improves flight safety and promotes confidence. A prototype has been built and tested.

The Use of Electric Fields and Conducting Fibers in the Manufacture of Conveyor Belts/324

Utilisation de champs électriques et de fibres conductrices pour la fabrication de courroies transporteuses/324

GTRI Record of Invention 729NCS. The disadvantage of building up electrical charge under useage leading to explosions in rubberized and PVC conveyor belts is circumvented by using electric fields to align conducting fibers to increase surface conductivity and thus dissipate the charge. The electric fields can be made to align and pull fibers towards the surface so as to increase selectively the surface conductivity.

Flywheel Energy Storage Device Incorporating Permanent Magnet Bearings and Rotor/324

Dispositif de stockage d'énergie à volant avec rotor et paliers à aimants permanents incorporés/324

GTRI Record of Invention 731NC. The device is designed to transfer electrical energy into and out of a rotating mechanical flywheel. Parasitic losses are minimized by an air suspension/permanent magnet bearing design. Energy input and output is accomplished using the rotor as the electrical field element. The device is suitable for residential or vehicular electrical energy storage. Simplicity in design and manufacture are features of the invention, as well as low cost.

Electrical Lowering of Resistivity in Polyvinyl Chloride Conveyor Belts/324

Abaissement électrique de la résistivité des courroies transporteuses en chlorure de polyvinile/324

GTRI Record of Invention 732NCS. Certain polyvinyl chloride conveyor belts have impregnated in the substrate yarns containing steel fibers. They are presently used with a cross-hatched pattern of these steel fiber yarns throughout. By impressing a large electric field tangential to these yarns a significant lowering in resistivity is achieved (several orders of magnitude). The process can be used on existing belts in an assembly line process at the end of production to make their ability to build up charge very small. The process has been laboratory tested and prepared for implementation.

Linear Down-draft Biomass Gasifier/324

Gazogène à biomasse linéaire à tirage par le bas/324

GTRI Record of Invention 733NC. The unit is a rectangular reactor vessel with a linear grate. Combustion air is preheated with part of the heat generated by the fuel. A combustible gas is produced having an energy content of about 150 BTU/scf. The process minimizes tar and oil production. The gasifier produces boiler fuels to displace natural gas and fuel oil. The unit is modular and can be readily scaled up or down in capacity. Manufacturing of the unit is eased by use of sheets and plates. A prototype scale model has been constructed and has operated for about 40 hours at 2 MMBTU/hr. A U.S. Patent Application has been filed, Serial Number 326,046.

Bibliography

Licensing Executives Society/324

"Launching a Product in a Market — Business, Legal and Licensing Considerations" is the theme for the 1983 joint Central/Western regional meeting of the Licensing Executives Society USA and Canada Inc., to be held at the Camelback Inn in Scottsdale, Arizona on February 18-19, 1983. Included are presentations by the President of Sunkist Softdrinks International Division on the introduction and joint venturing aspects of placing a new softdrink in the consumer market; by Katharine Ku, Technology Licensing Associate, Stanford University on marketing the Cohen/Boyer DNA cloning invention; by Cruzan Alexander and James A. Smith, Chief and Assistant Patent Counsellors for Minnesota Mining and Manufacturing Ltd. on Intellectual Property Considerations at the Point of Commercialization: Handling the Patent and Trade Secret Problems; by Paul R. Wylie, Attorney, on the computer — personalized "ME BOOK" by Dart Industries which studies a multitude of intellectual property considerations; by Jennie M. Crawley, Director of Litigation, Litton Industries Inc. on the liability aspects of product introduction and emerging trends; by James B. Gambrell, Attorney, Pravel, Gambrell, Hewitt, Kirk, Kimball & Dodge, on selecting and protecting trademarks to introduce a new product; and by John C. Lockwood, License Manager, Sunstrand Corp., on the impact of U.S. and Canadian government policy and regulations on product marketing domestic and international. Question periods will follow each presentation. William S. Campbell, Executive Vice-President of Consumers Glass Company Limited, Toronto, the President of LES U.S.A./Canada for 1983, will open the sessions and the special guest speaker will be Senator Barry Goldwater.

Information on the LES meeting in Scottsdale may be obtained from Melvin F. Jager, Lee Smith and Jager, 150 South Wacker Drive, Suite 950, Chicago, Illinois 60606, tel: (312) 726-1982 or Harold E. Gillman, Group Patent and Licensing Counsel, Litton Industries, Inc., 5500 Canoga Avenue, Woodland Hill, California 91367, tel: (213) 3220.

L.E.S. MEETS IN CANADA — SEPTEMBER 1983

The following has been received from the Licensing Executives Society U.S.A./Canada co-ordinator for its 1983 Annual Meeting and has been reprinted herein for the information of our readers.

We are pleased to announce that the 1983 Annual Meeting of the Licensing Executives Society (L.E.S.) USA-CANADA will be held in Quebec City from September 18th to the 21st. The theme of the meeting will be "TECHNOLOGY TRANSFER — THE SEED FOR RENEWED INDUSTRIAL GROWTH".

L.E.S. is composed of corporate and private licensing exe-

Bibliographie

Licensing Executives Society/324

"Le lancement d'un produit sur le marché — administration, aspects légaux et licences" sera le thème de l'assemblée régionale centre/ouest de la Licensing Executives Society USA and Canada Inc. qui aura lieu à l'hôtel Camelback Inn de Scottsdale (Arizona) les 18 et 19 février 1983. Le programme comporte des présentations, notamment par le président de la division internationale de Sunkist Softdrinks, sur l'introduction et les divers aspects de la coparticipation dans la mise en marché d'une nouvelle boisson gazeuse; par Katharine Ku (Technology Licensing Associate, Stanford University), sur la mise en marché de l'invention de Cohen/Boyer sur le clonage de l'ADN; par Cruzan Alexander et James A. Smith, respectivement chef et adjoint au service de conseillers sur les brevets à la Minnesota Mining and Manufacturing Ltd., qui traiteront de la propriété intellectuelle à l'étape de la commercialisation: la question des brevets et des secrets de fabrication; par Paul R. Wylie, avocat, sur le "ME BOOK" personnalisé par informatisation de la Dart Industries dans lequel on étudie une multitude d'aspects touchant la propriété intellectuelle; par Jennie M. Crawley, directrice des affaires en litige à la Litton Industries Inc., sur les responsabilités entourant l'introduction d'un produit et sur les tendances émergeantes; par James B. Gambrell, avocat à la firme Pravel, Gambrell, Hewitt, Kirk, Kimball & Dodge, sur le choix et la protection des marques de commerce dans le cas d'un nouveau produit; et par John C. Lockwood, directeur du service des licences à la Sunstrand Corp., sur les effets des politiques et réglementations des gouvernements canadien et américain sur la mise en marché d'un produit à l'échelle nationale et internationale. Il y aura une période de questions à la suite de chaque présentation. William S. Campbell, vice-président du conseil d'administration à la Consumers Glass Company Limited (Toronto) et président de la L.E.S. U.S.A./Canada en 1983, ouvrira les séances et le sénateur Barry Goldwater fera une présentation à titre d'invité spécial.

Pour obtenir de plus amples renseignements sur l'assemblée de Scottsdale, s'adresser à Melvin F. Jager, Lee Smith et Jager, 150 South Wacker Drive, Suite 950, Chicago, Illinois 60606, tél.: (312) 726-1982 ou à Harold E. Gillman, Group Patent and Licensing Counsel, Litton Industries Inc., 5500 Canoga Avenue, Woodland Hill, California 91367, tél.: (213) 3220.

RÉUNION DU L.E.S. CANADA — SEPTEMBRE 1983

Ce qui suit nous a été envoyé par le Coordonnateur de la réunion annuelle de 1983 de la "Licensing Executive Society" (L.E.S.) USA-CANADA et a été réimprimé à titre d'information pour nos lecteurs.

Nous avons le plaisir d'annoncer que la réunion annuelle de la "Licensing Executive Society" (L.E.S.) USA-CANADA, se tiendra dans la ville de Québec du 18 au 21 septembre 1983. La réunion aura pour thème "TRANSFERT TECHNOLOGIQUE — GERME D'UNE CROISSANCE INDUSTRIELLE RENOUVELÉE".

cutives and lawyers involved in the sale transactions or transfer of technology, both nationally and internationally.

We are pleased to point out that L.E.S. has this year elected its first Canadian President in Mr. William S. Campbell of Consumers Glass, Toronto. It is therefore appropriate that their annual meeting be held in Canada.

An invitation is extended to all who wish to attend our meeting in Quebec City this fall. We promise stimulating general sessions and workshops with high caliber speakers from leading corporate, private and government sectors, both from the United States and Canada and, of course, the charm of Old Quebec City which will offer an excellent social program with well planned tours and entertainment.

The theme of the meeting suggests the nature of the informative talks and discussions which will take place during the meeting. In this increasingly competitive world we strive to be more innovative or entrepreneur to maintain or improve our competitive position. Such industrial aspirations bring about increased research activity and technological acquisitions. You should look everywhere to see what the competition is doing. Business is quickly expanding internationally.

This is an excellent opportunity for you to participate with L.E.S. and find out what it is all about. For information on the 1983 L.E.S. USA-CANADA Annual Meeting, please contact:

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Membership enquiries should be addressed to: Norris M. Eades, Kirby, Shapiro, Eades & Cohen, P.O. Box 2705, Station "D", Ottawa, Ontario K1P 6H2 or Edwin A. Shalloway, Sherman & Shalloway, 413 North Washington Street, P.O. Box 788, Alexandria, Virginia 22313. Membership is not a prerequisite for attending these meetings.

Technology Transfer Course/324

The Licensing Executives Society U.S.A./Canada will provide a Technology Transfer Course in New York City from June 8-11, 1983. The new format, a single three and one half day session will include the basic topics presented in the original two-day Introductory and three-day Advanced Courses. Course brochures may be obtained from Dr. William T. Davis, Director of Licensing, Pfizer Inc., 235 East 42nd Street, New York, N.Y. 10017, tel: (201) 573-7594.

La L.E.S. regroupe des cadres et des avocats qui s'intéressent au "licensing" et qui sont impliqués dans la vente ou le transfert de technologie, sur une base nationale et internationale.

Nous sommes heureux de souligner l'élection cette année, du premier président canadien de la L.E.S., monsieur William S. Campbell, de Consumer Glass, Toronto. Il convenait donc que cette réunion annuelle se tienne au Canada.

La L.E.S. lance une invitation à tous ceux qui désirent assister à la réunion de Québec, cet automne. On y présentera des séances et des ateliers de travail donnés par des conférenciers canadiens et américains de renom provenant du secteur privé et du gouvernement. La tenue de cette réunion à Québec permet d'offrir un calendrier d'activités sociales des plus intéressants.

Le thème de la rencontre vous permet déjà d'entrevoir les sujets qui seront abordés. Le monde d'aujourd'hui en est un de compétition et il exige l'innovation. De là, l'importance de la recherche et des acquits technologiques. Il importe donc de prendre connaissance des activités de la concurrence sachant que celle-ci se développe rapidement au niveau international.

Cette réunion offre une excellente occasion de participer aux activités de la L.E.S. et de connaître cet organisme. Pour tout renseignement concernant la réunion annuelle de 1983 de la L.E.S. USA-CANADA, prière de s'informer auprès de:

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Adresser les demandes d'adhésion à Norris M. Eades, Kirby, Shapiro, Eades & Cohen, C.P. 2705, succ. "D", Ottawa, Ontario K1P 6H2 ou à Edwin A. Shalloway, Sherman & Shalloway, 413 North Washington Street, P.O. Box 788, Alexandria (Virginie) 22313. Il n'est pas obligatoire d'être membre pour assister aux assemblées.

Cours sur le transfer de la technologie/324

Un cours sur le transfer de la technologie sera donné à New York du 8 au 11 juin 1983 par la Licensing Executives Society, USA-Canada. La session, nouveau format de trois jours et demi, comprendra les matières de base présentées dans le cours original d'introduction de deux jours et du cours avancé de trois jours. On peut obtenir des brochures sur ce cours du Dr. William T. Davis, Director of Licensing, Pfizer Inc., 235 East 42nd Street, New York, N.Y. 10017, tél: (201) 573-7594.

1982 Trade Secrets Law Handbook/324

Price: U.S. $29.50, 385 pp., 1982 by Melvin F. Jager. This is the first volume in a projected annual series. Unlike the sister areas of jurisprudence dealing with patents, trademarks and copyrights, trade secrets law began in, and continues to be controlled by, the common law. The trade secret law is in a constant state of flux, and varies significantly from jurisdiction to jurisdiction. The book presents a clear understanding of the basic concepts underlying this large and dynamic area of the law, and assists the practitioner in quickly solving the practical legal problems involving trade secrets that develop

on a day-to-day basis. After a discussion of the creation and termination of the intangible right called a "trade secret", the Handbook chronologically analyzes the problems and issues presented in a typical trade secret confrontation and includes a comprehensive discussion of the issues: Public Policies Underlying Trade Secret Law; Historical Development of Trade Secret Concepts; Modern Definition of Trade Secret Concepts; The Initial Issues Presented by Trade Secret Litigation; Establishing a Trade Secret Case; Termination of Trade Secrets; Remedies in Trade Secret Litigation; Ownership Rights to Trade Secrets. Available from: Clark Boardman Company, Ltd., 435 Hudson Street, New York, N.Y. 10014, U.S.A.

CANADA PATENT OFFICE RECORD

The Canada Patent Office Record lists weekly the patents issued in Canada, those that are available for licensing or sale, the latest patent number to fall into public use, and other patent information. The weekly Canada Patent Office Record is available for $1.25 per single issue or $63.00 per annum. Copies and subscriptions are available from: Publishing Centre, Supply and Services Canada, Hull, Quebec, Canada K1A 0S9.

GAZETTE DU BUREAU DES BREVETS

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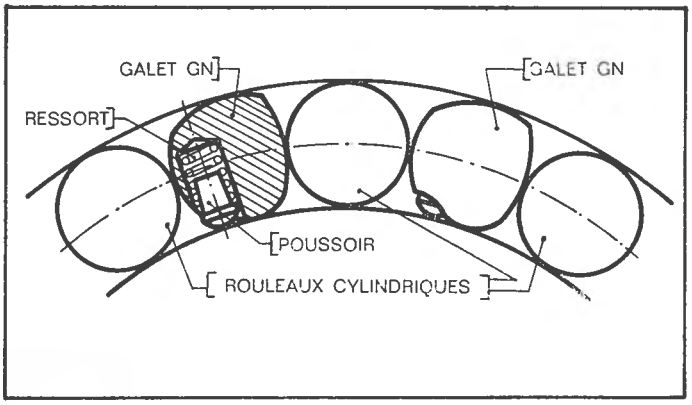
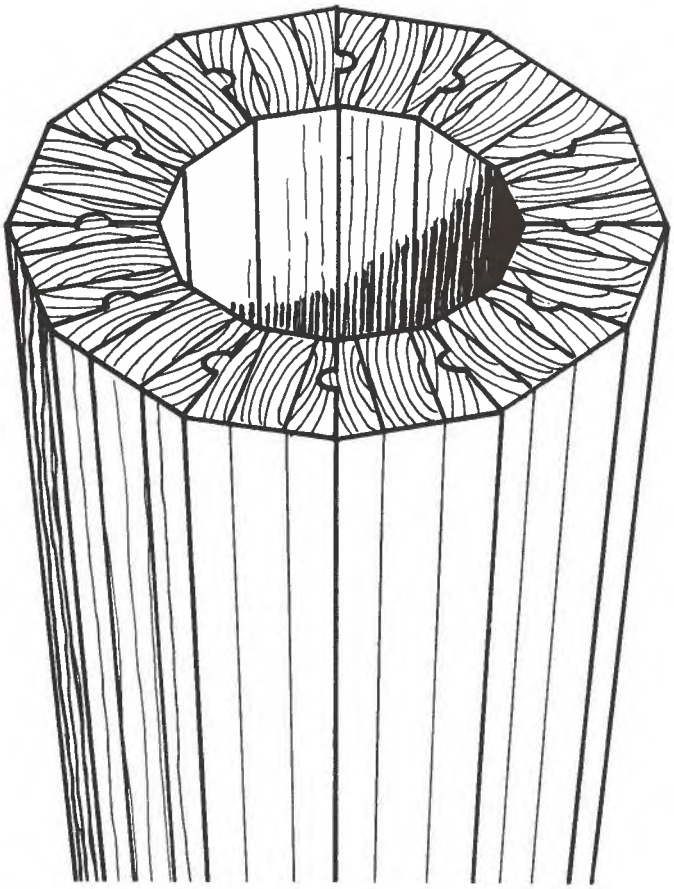
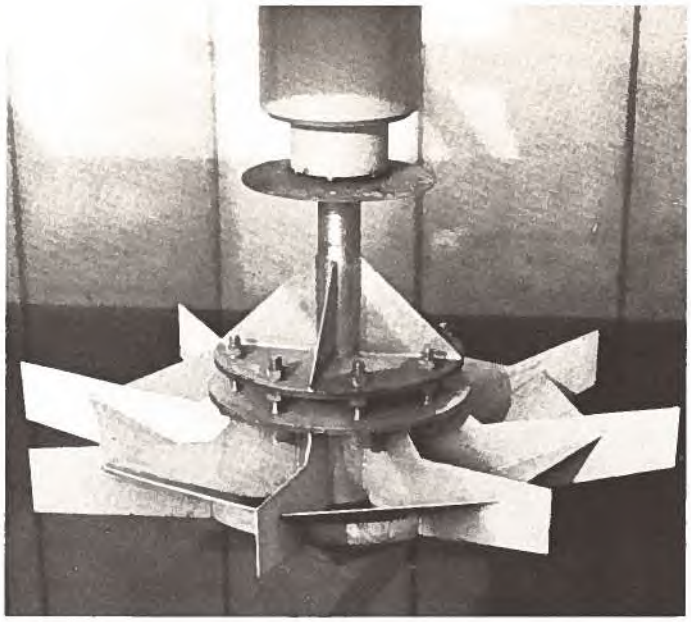


"GN" Freewheels and Backstop Assemblies
(See page 2)
Roues libres et antidériveurs à galets "GN"
(Voir page 2)



Laminated Timber Pillars or Poles
(See page 4)
Piliers et poteaux de bois lamellé-collé
(Voir page 4)



Surface Aerator (See page 3)
Aérateur superficiel (Voir page 3)

Synthetic Products and Systems
(See page 5)
Produits et ensembles de revêtements synthétiques (Voir page 5)

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