new products bulletin

bulletin de produits nouveaux

Bulletin 316, May 1982

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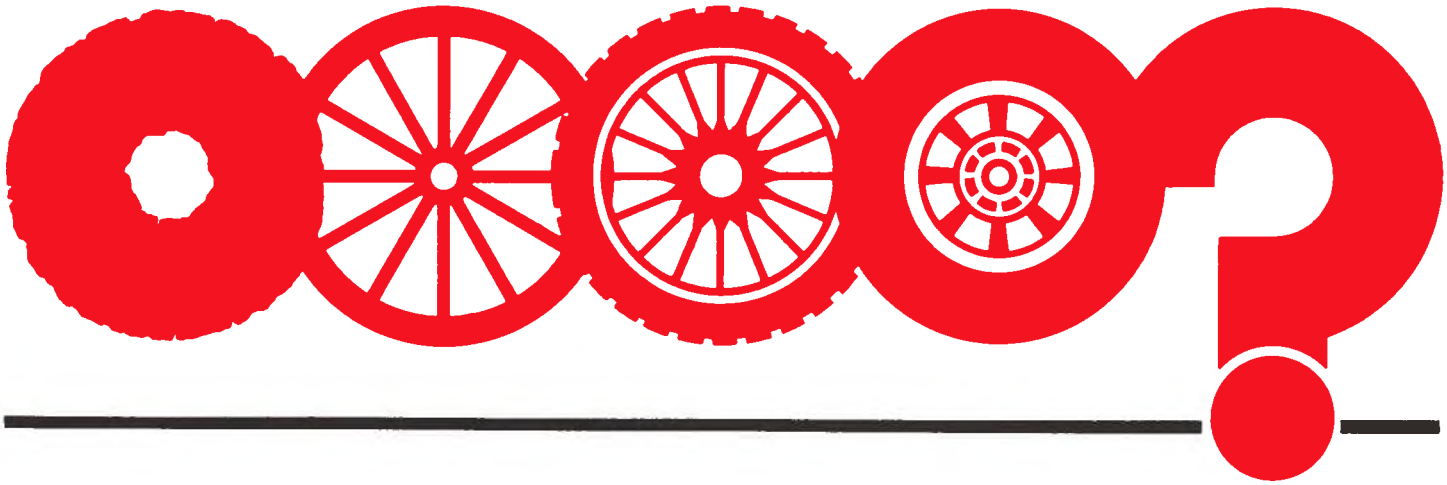

new products bulletin

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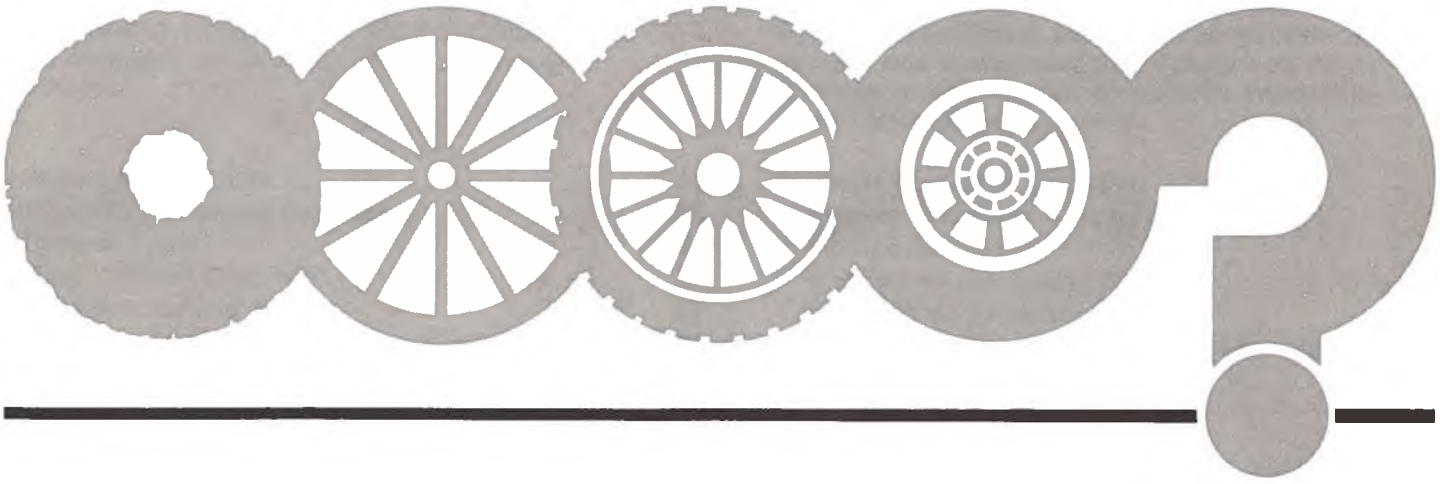
This monthly bulletin is published to inform Canadian industry of licensing and joint venture opportunities that may be investigated for the purpose of forming manufacturing affiliations. The Department cannot assume any responsibility for claims made or for transactions which ensue from the publication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

Apparatus for Measuring the Frequency of Microwave Signals/316

Analog frequency dividers are cascaded to convert the signal to be measured in octave steps into the frequency regimes of digital frequency counters. The measurements are virtually instantaneous and can be used for both microwave signals with large frequency modulation and pulsed microwave signals, unlike the heterodyne or the transfer oscillator techniques which are restricted to the one or the other. Write: **Case 6777**, 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.

Spectrum Shaping Microwave Digital Modulators/316

By pre-conditioning a baseband signal to compensate for non-linearity in a high power PIN diode phase modulator, it is possible to place the modulators after the TWT amplifier driven to saturation by an unmodulated CW signal. A shaped spectrum at baseband will be translated to the RF carrier without spectrum spreading. This technique is applicable in low-cost, low-date rate earth terminals and has the advantages of 1) significantly saving RF power, 2) avoiding high power amplifier non-linearities, and 3) lowering the microwave equipment cost by eliminating up conversion equipment. Write: **Case 7145**, 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 Frequency Selective Optical Memory, I/O Technique Using Stark Shifting/316

A technique which provides fast writing and reading of information in a frequency selective optical memory, using an optical storage material which is responsive to an electric field for frequency shifting the hole in the material. The response time is in the order of 10^{-9} seconds, with a capacity of 10^4 bits scanned in the frequency dimension by a single frequency laser beam. (See also 7178.) Write: **Case 7177**, Canadian Patents and Development Limited, 275 Slater

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

Fréquencemètre pour signaux hyperfréquences/316

Des diviseurs de fréquence analogiques sont branchés en cascade pour changer le signal à mesurer en octaves, aux modes fréquentiels de fréquencemètres numériques. Les mesures sont de fait instantanées et peuvent s'appliquer à la fois à des signaux hyperfréquences à modulation de fréquence étendue et à des impulsions hyperfréquences. Les techniques d'oscillation hétérodyne ou d'oscillation par transfert sont limitées à l'une ou à l'autre. Écrire: **Cas 6777**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Modulateurs numériques micro-ondes à conformation de spectre/316

En préconditionnant un signal de la bande de base pour compenser la non-linéarité d'un modulateur de phase de puissance à diodes PIN, il est possible de placer les modulateurs après l'amplificateur TOP commandé à saturation par un signal OE. Le spectre modelé de la bande de base se traduira par une porteuse RF sans étalement du spectre. Cette technique s'applique à des stations terminales terriennes bon marché et de faible débit; elle a pour avantages: 1°) de réaliser une économie importante de puissance RF; 2°) d'éviter la non-linéarité des amplificateurs de puissance; et 3°) de réduire le coût de l'équipement micro-onde en éliminant les convertisseurs élévateurs de fréquence. Écrire: **Cas 7145**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Mémoire optique sélective en fréquence avec méthode d'entrée-sortie à déplacement par effet Stark/316

Technique qui fournit l'écriture et la lecture rapides d'informations dans une mémoire optique sélective en fréquence grâce à un matériau à mémorisation optique sensible à un champ électrique, lequel y produit un décalage en fréquence des trous. Le temps de réponse est de l'ordre de 10^{-9} seconde, avec une capacité de 10^4 bits balayés en fréquence par un faisceau laser monofréquence (voir aussi 7178). Écrire: **Cas 7177**, Société canadienne des brevets et

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.

d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Apparatus for Fast Access to a Series of Stored Images/316

Spatial scanning of a laser beam is provided by changing the grating stored in an optical memory with an electric field across the optical storage material. This method is faster than acousto-optic scanning and does not doppler shift the frequency of the input beam. It can be used to write and read other optical memories or to scan two or three dimension holographic images. (See also 7177.) Write: **Case 7178**, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Dispositif d'accès rapide à une série d'images mémorisées/316

Le balayage spatial d'un faisceau laser est fourni en changeant la trame mémorisée dans une mémoire optique avec un champ électrique traversant le matériau à mémorisation optique. Cette méthode est plus rapide qu'un balayage acousto-optique et ne fait pas varier la fréquence du faisceau d'entrée. Elle peut servir à effectuer l'écriture et la lecture dans d'autres mémoires optiques ou à balayer des images holographiques à deux ou trois dimensions (voir aussi 7177). Écrire: **Cas 7178**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Microwave Storage Device/316

It relates to a device for receiving and coherently storing a pulse modulated RF signal. Repetitive access and reconstruction of the stored signal is achieved without noise deterioration and the frequency of the output signal can be shifted relative to the input signal. This device can handle frequencies up to 4GHz unlike digital storage techniques which are limited to several hundred MHz. Applications include wideband amplifiers, programmable HF delay lines and radar jammers. Write: **Case 7202**, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Dispositif de mémorisation micro-ondes/316

Il s'agit d'un dispositif permettant la réception et la mémorisation cohérente d'impulsions RF modulées. L'accès au signal mémorisé et sa reconstitution répétitifs s'effectuent sans augmentation du bruit et la fréquence du signal de sortie peut être décalée par rapport au signal d'entrée. Ce dispositif peut travailler à des fréquences d'au plus 4 GHz à la différence des dispositifs de mémorisation numérique limités à quelques centaines de Mégahertz. Le champ d'application comprend les amplificateurs à large bande, les lignes à retard HF programmables et les brouilleurs radar. Écrire: **Cas 7202**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Portable Digital Heart Rate Meter and Stethoscope/316

Heart rate can be detected through the patient's clothing which is an asset where speed, convenience or avoidance of embarrassment are required. The detector can also be connected to an audio amplifier to function as an electronic stethoscope. Write: **Case 7232**, 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.

Stéthoscope et cardiographe numérique portatif/316

Cet appareil permet de détecter les battements du coeur au travers des vêtements d'un patient. Il présente un avantage important lorsque cette méthode s'avère plus rapide, plus pratique ou moins embarrassante pour le patient. Le détecteur du stéthoscope peut aussi être branché sur un amplificateur audio; il fonctionne alors comme un stéthoscope électronique. Écrire: **Cas 7232**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Laser Production of Vitamin D/316

A method of manufacturing pre-vitamin D compounds utilizing laser energy of the specified wavelength to enhance the desired reactions and minimize the formation of undesirable side products. Laser energy can also be used to convert the products of conventional processes to a final product approximately 95% pre-vitamin D. A simple thermolysis stage is used to produce the final vitamin D compounds. Write: **Case 7294**, 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.

Production de vitamines D par laser/316

Méthode de fabrication de la prévitamine D utilisant une irradiation laser de longueur d'onde déterminée favorisant le déroulement de réactions désirables et réduisant au minimum la formation de produits secondaires indésirables. L'irradiation laser peut aussi être utilisée pour convertir les produits de réactions classiques en un produit final contenant environ 95% de prévitamine D. Les vitamines D sont ensuite obtenus par un simple procédé de thermolyse. Écrire: **Cas 7294**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

An Improved GaAs-GaA1As Photodetector/316

It relates to a photodetector structure where the back diffusion of carriers generated in the substrate, which normally limits the high frequency response of the device, is eliminated. High frequency photodetection can thus be achieved. It is particularly suitable for optoelectronic switching at frequencies up to 4GHz. Write: **Case 7452**, 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.

Photodétecteur amélioré au GaAs-GaA1As/316

Concerne une structure de photodétecteur éliminant la rétrodiffusion des porteurs générés dans le substrat qui limitent généralement la réponse de ces dispositifs en hautes fréquences. Ce photodétecteur convient particulièrement aux applications de commutation opto-électronique à des fréquences pouvant atteindre 4 GHz. Écrire: **Cas 7452**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Baseband Linearizer for High Power Non-Linear Amplifiers/316

This technique is used to correct non linear amplifier distortions that degrade the transmission performance of digital modulators. Power limited satellite communication systems as well as bandwidth efficient land microwave systems can have their performance/cost ratio significantly improved by this technique. Write: **Case 7463**, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Appareil de linéarisation de la bande de base pour amplicateurs de puissance non linéaires/316

Cette technique permet de corriger les distortions des amplificateurs non linéaires qui altèrent les performances de transmission des modulateurs numériques. Elle permet une amélioration non négligeable du rapport performance sur coût des systèmes de télécommunication par satellite limités en puissance ainsi que celui des réseaux hertziens terrestres à utilisation efficace du spectre. Écrire: **Cas 7463**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Electroexplosives RF Power Safety Margin Measuring Method/316

An efficient and simple method for monitoring and measuring the RF power dissipated by resistive devices. This method is particularly suitable in systems shielded from RF for safety considerations such as electroexplosive initiators (squibs) and associated lines in weapon systems. Write: **Case 7492**, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities

Méthode de mesure de la marge de sécurité RF des dispositifs de mise à feu électrique/316

Méthode simple et efficace pour le contrôle et la mesure de la puissance RF dissipée dans des dispositifs résistifs. Cette méthode convient particulièrement dans les systèmes comportant un blindage anti RF pour des raisons de sécurité, tels que les dispositifs de mise à feu électriques (canettes) et leurs lignes connexes. Écrire: **Cas 7492**, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre

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

Vacuum Cooling Units/316

Dutch manufacturer offers a Canadian company technical know-how for the manufacture, sale and servicing of stationary and mobile produce refrigerating equipment. The line includes refrigeration, deep freezing and process cooling systems, environmental chambers and air-conditioning cabinets for agricultural and horticultural produce, e.g., vegetables, fruit, nursery stocks, drinks, meat processing, dairy products and fish processing. The storage life of large quantities of vegetables such as lettuce can be extended considerably by the use of new vacuum cooling units which lower the evaporation temperature by reducing the pressure. Basically, water vapor is formed from the water adhering to the produce and very little from the produce itself, and condensed on a cold surface. Largest mobile unit's capacity is approximately 5,850 kg of lettuce per hour and a temperature range from 1°C to 20°C. The largest stationary unit built has a 24,750 kg capacity with the same temperature range. Vacuum chambers generally have an internal diameter of approximately 3.3 m and total length varies from 5 m to 15 m. Total pump capacity is distributed over various pumps so that the unit will function partially in the event of a breakdown. The pressure build up and return to atmospheric pressure is automatic. All of the cooling units can be provided with air-cooled, water-cooled or evaporative condensers. Another system — hydrocooling, or spraying mechanically cooled water over hard vegetables or fruits, e.g. carrots, results in rapid cooling, better and longer keeping qualities and negligible waste in storage or over long distances. Double vacuum cooling installations with a capacity of 25,000 kg - 30,000 kg of lettuce per hour, cooling from + 21°C to + 1°C is illustrated on page 45. Write: Van Kempen Machine- en Apparatenfabriek B.V., Industrieterrein-West, Papesteeg 94a, 4001 WE Tiel, The Netherlands and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Sophialaan 7, The Hague, Netherlands.

Hyperbolic Ring Tower/316

American inventor offers a new method of construction, that is patented in Canada and many other countries, in which all forces are eliminated except axial forces in the structure. The ruled line truss members serve two simultaneous purposes: namely, vertical support and also bracing. The structure is mathematically determinated and requires no destruction testing of models to prove its structural integrity. This new structure is therefore claimed to be the strongest building configuration known. It lends itself to most economical use as a tall building subject to wind or earthquake forces and also seems an ideal solution for an offshore structure subject to the above forces as well as those of ocean waves and drifting ice. Other uses can include solar

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.

Installations de réfrigération sous vide/316

Un fabricant hollandais offre à une compagnie canadienne les droits de fabrication, de vente et d'entretien sous licence d'un dispositif de réfrigération fixe ou mobile pour fruits et légumes. L'installation assure la réfrigération, la congélation et le refroidissement de procédés, et comporte aussi des chambres froides et des armoires réfrigérées pour produits agricoles et horticoles, p. ex. légumes, fruits, produits de pépinières, boissons, dérivés de la viande, produits laitiers et poissons. La durée de stockage de grandes quantités de légumes, comme les laitues, peut être considérablement prolongée grâce aux nouvelles installations de réfrigération sous vide qui baissent la température d'évaporation en diminuant la pression. Fondamentalement, il se forme de la vapeur d'eau à partir de l'eau se trouvant sur le produit et très peu à partir du produit lui-même; cette vapeur se condense ensuite sur une surface froide. La capacité de la plus grande installation mobile est d'environ 5 850 kg de laitues par heure pour une plage de températures de 1°C à 20°C. La plus grande installation fixe a une capacité de 24 750 kg, dans la même plage de températures. Les chambres sous vide ont généralement un diamètre interne de 3,3 m environ et leur longueur totale varie de 5 à 15 m. Le pompage est assuré par diverses pompes, de sorte que l'installation fonctionnera partiellement en cas de panne. La pressurisation et la dépressurisation se font automatiquement. Toutes les unités de réfrigération peuvent être munies de réfrigérants refroidis par air, par eau et par évaporation forcée. Un autre système — l'hydro-réfrigération, qui consiste à pulvériser mécaniquement de l'eau refroidie sur des légumes durs ou des fruits, p. ex. des carottes — assure une réfrigération rapide, une meilleure et une plus longue conservation et une quantité négligeable de déchets lors du stockage ou de transport sur de grandes distances. La double installation de réfrigération sous vide présentant une capacité de 25 000 kg - 30 000 kg de laitues par heure, pour une réfrigération de 21 à 1°C, est illustrée à la page 45. Écrire à: Van Kempen Machine- en Apparatenfabriek B.V., Industrieterrein-West, Papesteeg 94a, 4001 WE Tiel (Pays-Bas) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Sophialaan 7, La Haye (Pays-Bas).

Tour hyperbolique/316

Un inventeur américain offre une nouvelle méthode de construction, brevetée au Canada et dans de nombreux autres pays, selon laquelle toutes les forces sont éliminées, sauf les forces axiales internes. Les éléments de ferme rectilignes servent en même temps de supports verticaux et de contreventement. La structure est déterminée suivant un calcul mathématique et il n'est donc pas nécessaire d'effectuer des essais jusqu'à la rupture à l'aide de maquettes pour prouver son intégrité structurale. On affirme que cette nouvelle structure est la forme de bâtiment la plus résistante qui soit connue. Elle s'avère très économique pour les bâtiments de grande hauteur soumis aux effets des vents et des séismes et semble aussi être la solution idéale pour

towers which can be built above 450 m high and which would not be subject to wind sway as are conventional structures. Wind towers can be built with the fan completely enclosed and not subject to blade shadow. Construction materials may be concrete, metals, plastics, or a combination (composite) material. The structure is a circular or elliptical plan with all pieces made along straight lines although the structure is curved in vertical elevation. Less building material is required than in may other system because of the elimination of forces. Multiple use of identical pieces lends itself to prefabrication of precast pieces. Environmental advantages because of Hyperbolic Venturi Principle: less or no offsite power will be needed for cooling and ventilation of the building. (See illustration page 45.) Write: Mr. Terrance J. Waters, 33560 Mulholland Highway, Malibu, California 90265 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014-1377, U.S.A.

les structures marines soumises aux forces susmentionnées ainsi qu'à celles exercées par les vagues et la glace. Cette nouvelle structure peut également être utilisée comme tour solaire pouvant mesurer plus de 450 m de hauteur et qui n'est pas sujette à un mouvement oscillatoire causé par le vent comme le sont les structures traditionnelles. Si elle est utilisée comme tour éolienne, l'hélice peut être complètement enfermée, ce qui évite l'effet de masquage par les pales. Les matériaux de construction pouvant être employés comprennent le béton, les métaux, les plastiques ou des matériaux composites. La structure a un plan circulaire ou elliptique et toutes les pièces sont rectilignes, quoique la structure ait un profil courbe dans le plan vertical. Ce genre de structure requiert moins de matériaux de construction grâce à l'élimination des forces. L'emploi de pièces identiques à des fins multiples favorise la préfabrication. Avantage écologique découlant du principe de Venturi sur l'hyperbole: très peu sinon aucune énergie produite hors des lieux ne sera nécessaire pour le refroidissement et la ventilation du bâtiment. (Voir l'illustration page 45). Écrire à: M. Terrance J. Waters, 33560 Mulholland Highway, Malibu (Californie) 90265 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 510 West Sixth Street, Los Angeles (Californie) 90014-1377.

Industrial Robot/316

British manufacturer offers licensing rights to a Canadian company for its new industrial robots that are pneumatically operated and can be programmed for a variety of tasks, from loading and quality control to electrostatic spraying. A simple push-button keyboard is used to train the robot: it will accept up to 1200 commands on a single program. The robot hand is manually led through the sequence and the 'learn' button is pushed at each step. when the 'auto' button is pushed, the robot will repeat the task until it is reprogrammed. The robot has a vertical lift from 25 cm to 1.05 cm, its reach is 10 cm to 60 cm; and its rotation is plus or minus 88 degrees; it can carry up to 4.9 kg. The licensee should have experience in the field of automation or production engineering, a sales force with contacts with manufacturing companies and a capacility to assess applications for the PLACEMATE robots. The licensee will also be required to design and supply interfacing equipment, grippers, multiheads, etc. to meet the robots' applications, to install and commission the equipment and to supply local back-up and maintenance facilities where required. The British firm's medium term strategy suggests the purchase of a PLACEMATE 5 Robot for demonstration purposes, the provision of engineers for an initial two week training period on licensee's premises and the import of the robots from its new plant factory in England until sufficient market penetration and an assessment of the quality of equipment made for use with the robot leads to full production. Write: Vernon Crudge Associates, 620 Fifth Avenue, New York City, N.Y. 10020 and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020-1175, U.S.A.

Robot industriel/316

Un fabricant britannique offre à une société canadienne les droits d'exploitation de son brevet pour des nouveaux robots industriels à commande pneumatique et programmables pour une vaste gamme de travaux, allant du chargement et du contrôle de la qualité à la pulvérisation électrostatique. Un clavier simple à boutons-poussoirs sert à programmer le robot; un seul programme peut comporter jusqu'à 1 200 commandes. On amène manuellement la pince du robot en position et on appuie sur le bouton marqué "learn" à chaque étape. On appuie ensuite sur le bouton "auto" et le robot répète le travail jusqu'à ce qu'il soit reprogrammé. Le robot a une levée verticale comprise entre 25 et 105 cm et une portée comprise entre 10 et 60 cm; de plus, il peut pivoter sur 176 degrés et transporter un poids de 4,9 kilos. Le titulaire de ses droits doit avoir de l'expérience dans le domaine de l'automatisation ou de l'organisation de la production, des représentants en contact avec les fabricants et pouvoir établir des utilisations pour les robots PLACEMATE. Le titulaire des droits sera aussi appelé à concevoir et à fournir du matériel connexe comme des pinces, des têtes multiples, etc. de façon qu'il convienne aux utilisations du robot, à poser et à commander du matériel et à approvisionner les services d'entretien et de soutien locaux au besoin. La stratégie de la firme britannique à moyen terme recommande l'acquisition d'un robot PLACEMATE 5 à des fins de démonstration, un premier stage de formation de deux semaines pour les ingénieurs, aux frais de la société titulaire des droits ainsi que l'importation de robots provenant de sa nouvelle usine en Angleterre jusqu'à ce que le produit fasse une percée importante sur le marché et que la qualité du matériel connexe soit jugée suffisante de façon qu'on puisse entreprendre la production en série des robots. Écrire à: Vernon Crudge Associates, 620 Fifth Avenue, New York, N.Y., 10020 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 1251 Avenue of the Americas, New York City. N.Y., 10020-1175.

Industrial Spray Booths and Ancilliary Equipment/316

American manufacturer offers the Canadian manufacturing and marketing rights under its Canadian patents and trade mark for the Protectaire™ line of conveyor protection systems, dry and water wash spray booths, washers, ovens, energy savers, fire protection devices, sludge removers and accessories, several of which are proprietary for industrial finishing. Compared with competitive products, the Protectaire™ line features unique design, reduced maintenance and operating costs, improved product quality and uses less energy consumption in its painting systems. Also, the unique features incorporated in the spray booths provide better emission-free operation, save energy and provide improved face velocity for spray painting operations. American firm will license the patents and trade mark, supply technical know-how, manufacturing procedures and marketing know-how to an established manufacturer of sheet metal products and related mechanical devices which it sells to industrial customers. (See illustration page 45.). Write: Mr. Charles F. Rietz, Executive Vice-President, Protectaire Systems Co., 1353 N. McLean Blvd, Elgin, Illinois 60120 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.

Cabines de pistolage industrielles et équipement auxiliaire/316

Un fabricant américain offre de vendre à une société canadienne la licence de fabrication et de commercialisation sous son brevet et sa marque de fabrique la gamme de produits Protectaire(™): dispositifs de protection des convoyeurs, cabines de pistolage à ventilation sèche et à rideau d'eau, douches, fours, économiseurs d'énergie, dispositifs de protection contre les incendies, bacs de décantation et accessoires, plusieurs d'entre eux étant spécialement destinés à la finition des produits industriels. Comparée à la concurrence, la gamme Protectaire(™) se distingue par une conception unique, une qualité supérieure et une consommation d'énergie réduite de ses installations de peinture. En outre, les caractéristiques uniques dont sont dotées ces cabines de pistolage permettent de travailler dans un milieu moins pollué, économisent l'énergie et permettent une meilleure circulation d'air lors des travaux. La firme américaine s'occupera des formalités d'enregistrement des brevets et de la marque de fabrique, fournira les données techniques, les procédés de fabrication et la méthode de commercialisation à un fabricant établi de produits en tôle et de dispositifs mécaniques pertinents à vendre à des établissements industriels. (Voir l'illustration page 45.) Écrire à: M. Charles F. Rietz, Executive Vice-President, Protectaire Systems Co., 1353 N. McLean Blvd, Elgin, Illinois 60120 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 310 South Michigan Avenue, 12e étage, Chicago, Illinois 60604-4295 (É.-U.).

Security Lock and Bolt/316

Swiss inventor of a security lock and bolt which is licensed for France, Belgium, Luxembourg, Spain and Portugal offers a Canadian company the manufacturing and North and South American marketing rights to a security lock having a precise, sturdy and high quality cylinder capable of hundreds of thousands of key combinations and can use hundreds of different master keys. The key's novel profile is difficult to counterfeit as the indentation can only be produced at the factory. It is also claimed that it is impossible to take an impression of the barrel; the device will accommodate varying thicknesses of doors; has an automatic blocking device which remains in position when locked; no visible screws; the double cylinder cannot be broken by special pliers; and the ingenious mechanism allows selection of the cylinder for either left or right closing door to be made at the place of installation. (See illustration page 46.) Write: Mr. Roger Parlier, Bureau Regor, Villa Prélac, 1166 Perroy, Switzerland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Kirchenfeldstrasse 88, 3005 Berne, Switzerland.

Verrou et pêne de sûreté/316

Un Suisse, inventeur d'un verrou et d'un pêne de sûreté sous licence en France, en Belgique, au Luxembourg, en Espagne et au Portugal, offre à une firme canadienne les droits de fabrication et de mise en marché pour l'Amérique du Nord et l'Amérique du Sud d'un verrou de sûreté comprenant un cylindre précis, robuste et de haute qualité permettant des milliers de combinaisons de clés et l'utilisation de centaines de passe-partout. De conception nouvelle, le profil de la clé est difficile à contrefaire, le panneton ne pouvant être réalisé qu'à la fabrique. On affirme aussi qu'il est impossible de prendre l'empreinte du barillet. Ce verrou sans vis apparente peut être monté sur des portes de diverses épaisseurs. De plus, il est muni d'un dispositif de blocage automatique qui reste en place en position verrouillée. Il est impossible de briser le double cylindre à l'aide de pinces spéciales. Un mécanisme ingénieux permet le montage sur place d'un cylindre pour portes à fermeture à gauche ou à droite. (Voir l'illustration page 46.) Écrire à: M. Roger Parlier, Bureau Regor, Villa Prélac, 1166 Perroy (Suisse) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Kirchenfeldstrasse 88, 3005 Berne (Suisse).

Vehicle Generators/Alternators, Starters/316

A large French company with sales in excess of 6 billion F.F., offers licensing rights to a Canadian firm for the manufacture and sale of original equipment alternators, starters, generators and regulators on which patents and trade marks

Alternateurs et démarreurs pour véhicules/316

Une importante entreprise française dont le volume des ventes est supérieur à 6 milliards de francs français, offre à une firme canadienne les droits de licence pour la fabrication et la vente d'alternateurs, de démarreurs et de régulateurs

have been obtained. The original equipment components are used on passenger cars, trucks, off-highway vehicles, and marine applications. The French firm can supply technical assistance, know-how and equipment, machines, tools and CKD parts to start production. The United States and Mexican markets will be supplied from the Canadian manufacturing facility. Write: Paris-Rhone, 36 Avenue Jean Mermoz, 69355 Lyon, Cédex 2, France and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, 35 Avenue Montaigne, 75008 Paris, France.

brevetés et de marque déposée. Les pièces originales en question sont destinées aux véhicules de tourisme, aux camions, aux engins spéciaux et aux moteurs marins. La firme française peut apporter l'assistance technique, le savoir-faire, le matériel, les outils et les pièces CKD pour le démarrage de la production. L'installation de fabrication canadienne alimentera les marchés américain et mexicain. Écrire à: Paris-Rhone, 36, avenue Jean Mermoz, 69355 Lyon, Cédex 2 (France) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris (France).

Dosimeter/316

Danish inventor/manufacturer offers the manufacturing and marketing rights to a Canadian company for a patented in Canada (1,110,512) apparatus for exact dosing of a fluent additive, especially a medicine, into the drinking water intended for cattle. The drinking water is pumped up from a well or a reservoir by means of a pumping device driven by the cattle when the drinking water is required, and comprises a piping for the additive which is connected by means of a tight gasket to a main suction piping. The piping for the additive is connected at its other end to a dosing member with a built-in non-return valve placed in a container with the additive and locked to prevent access by children. The dosing member is provided with a cross-sectional opening for passage of the additive, which cross-sectional opening is determined by a replaceable nozzle. The apparatus has the following advantages: New effective method for control of intestinal and lung worms; saves time and work; produces healthy animals; experiments show that this method of treatment is as good as individual treatment; no eggs in the faeces, therefore no contamination of larvae; experiments show that treatment of cattle on grass with anthelmintics can give an additional weight gain of 50 kg, calving two months earlier, and 190 kg more milk in the first lactation. Write: Mr. Niels Midtgaard, NBM Dosimat, Skovbrynet 5, 2880-Bagsvaerd, Denmark and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Kr. Bernikowsgade 1, 1105 Copenhagen K, Denmark.

Doseur/316

Un inventeur et fabricant danois offre à une compagnie canadienne les droits de fabrication et de mise en marché d'un appareil breveté au Canada (1,110,512) permettant d'ajouter à l'eau des abreuvoirs à bestiaux des doses exactes de produits liquides et plus particulièrement de médicaments. L'eau est pompée du puits ou du réservoir au moyen d'un dispositif actionné par l'animal qui veut boire. Ce dispositif comporte un tuyau de pompage auquel est branché, au moyen d'une prise cavalier, un tube d'aspiration par lequel s'écoule l'additif libéré par le doseur. Le doseur est muni d'un clapet anti-retour et d'une prise interchangeable dont le choix de l'ouverture permet de régler la dose; il est placé avec l'additif dans une boîte verrouillable pour la sécurité des enfants. Avantages que présente le doseur: nouveau moyen efficace d'éliminer les vers intestinaux et pulmonaires, économie de temps et de travail, animaux en bonne santé. Des expériences ont montré que cette méthode donne d'aussi bons résultats que le traitement individuel; comme les matières fécales ne contiennent pas d'oeufs, il n'y a aucune contamination par les larves. Des expériences montrent qu'en administrant des anthelminthiques au bétail en pré, on peut s'assurer un gain de poids de 50 kg, un vêlage avancé de deux mois et une production de lait augmentée de 190 kg à la première lactation. Écrire à: M. Niels Midtgaard, NBM Dosimat, Skovbrynet 5, 2880-Bagsvaerd (Danemark) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Kr. Bernikowsgade 1, 1105 Copenhague K (Danemark).

Toboggan on Skis/316

Austrian licensing representative for German inventor offers a Canadian company the manufacturing and negotiable marketing rights for a toboggan on skis which is patented in Europe, U.S.A. and Canada. The toboggan is constructed of two runners made of stacked wood with a synthetic coating, 2 cross beams which connect the runners through a link, a seat of timber with cross beams of aluminum through a rubber-metal connection and through a further link. A steering line is fixed on the front end of the runners. Stopping or slowing down is accomplished as in alpine skiing or by pulling up on the front of the skis as with a conventional toboggan. Inclining of the seat and edging the runners when driving quickly and on narrow turns at right angles to the slope, neutralizes tipping and improves manoeuvrability. (See illustrations page 46.) Write: Mr. Theodor Mayer, Bahnhofstr. 16, A-6845 HOHENEMS/Vorarlbg., Postfach 84, Aus-

Toboggan sur patins/316

Un représentant de l'organisme autrichien d'octroiement des permis propose à une compagnie canadienne, pour le compte d'un inventeur allemand, la fabrication d'un toboggan sur patins, qui est breveté en Europe, aux É.-U. et au Canada, et des droits négociables de commercialisation de cette invention. Le toboggan se compose de deux patins en bois stratifié revêtus d'une matière synthétique, de deux traverses reliant les patins par l'intermédiaire d'un joint, d'un siège en bois avec deux traverses en aluminium assurant la liaison au reste du toboggan par l'intermédiaire d'un joint caoutchouc-métal et d'une autre articulation. Une courroie de conduite est fixée à l'extrémité avant des patins. Pour arrêter ou ralentir le toboggan, on procède de la même façon qu'en ski alpin ou bien on soulève la partie avant des patins comme on le fait avec un toboggan ordinaire. À grande vitesse et dans les virages serrés perpendiculaires à la

tria and send a copy of your initial correspondence to the Commercial Division, Canadian Embassy, Luegerring 10, A-1010 Vienna, Austria.

pente, l'inclinaison du siège et des patins empêche le toboggan de basculer et améliore sa maniabilité. (Voir les illustrations page 46.) Écrire à: M. Theodor Mayer, Bahnhofstr. 16, A-6845 HOHENEMS/Vorarlbg., Postfach 84 (Autriche) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Luegerring 10, A-1010 Vienne (Autriche).

Injection Syringe for Meat/316

American inventor offers a Canadian company the manufacturing and marketing rights under his U.S. patent number 4,254,700 to a hand-held domestic appliance for injecting liquid under pressure into meat for the purpose of tenderizing, pre-basting or seasoning. The device, to which design improvements have been made, is portable, lightweight, small, efficient and economical at both the manufacturing and retail level. It consists of one or more hollow needles, a reservoir and a pump. The advantage is that the homemaker may purchase cheaper cuts of meat, or treat wild game by self-basting or injecting fluid tenderizers, water or seasoning into meat or poultry prior to cooking using preferred liquids rather than processing fluids such as glycerides, salts, polysorbates, artificial colour and flavouring. Write: Mr. Edward H. Fleming, c/o B. Gray, 85 Royal Lane, Agawam, Massachusetts, 01001 and send a copy of your initial correspondence to Canadian Consulate General, 500 Boylston Street, Boston, Massachusetts, 02116-3775.

Seringue à viande/316

Un inventeur américain offre à une compagnie canadienne les droits de fabrication et de commercialisation, sous le brevet américain n° 4 254 700, d'un appareil ménager à main destiné à injecter du liquide sous pression dans de la viande pour l'attendrir, l'arroser ou l'assaisonner. Cet appareil, dont la conception a été améliorée, présente l'avantage d'être portatif, léger, peu encombrant, efficace et économique tant sur le plan fabrication que prix de détail. Il est constitué d'une ou de plusieurs aiguilles creuses, d'un réservoir et d'une pompe. Grâce à cet appareil, la ménagère peut acheter des morceaux de viande meilleur marché ou cuire du gibier sauvage car il permet un auto-arrosage ou l'injection d'attendrisseurs liquides, d'eau ou d'assaisonnement dans la viande ou la volaille avant la cuisson; on peut injecter le liquide de son choix ce qui est préférable à l'utilisation de liquides de conditionnement comme des glycérides, des sels, des polysorbates, des colorants et des arômes artificiels. Écrire à: M. Edward H. Fleming, a/s B. Gray, 85 Royal Lane, Agawam (Massachusetts) 01001 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 500 Boylston Street, Boston (Massachusetts) 02116-3775.

Polymers for Chromatographic Separation/316

Hungarian Foreign Trade Organization offers licensing agreements to manufacture and market cyclodextrin-polyvinyl alcohol polymers for use in chromatographic separation that are patented in Canada and the U.S.A. The polymers are claimed to have outstanding thermal and microbiological stability, achieve sharper separation of several compounds, widen the field of application of chromatography, are regeneratable and can be hydrated and dehydrated repeatedly. Write to: Novex CH-5, Novex Foreign Trade Co. Ltd., Development & Commercialization of Inventions, P.O. Box 62, Budapest H-1364, Hungary and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Budakeszi ut 55/dP/8, 1021 Budapest, Hungary.

Polymères pour séparation chromatographique/316

Une organisation hongroise de commerce extérieur offre les droits de fabrication et de commercialisation sous licence de polymères constitués de cyclodextrine et d'alcool polyvinylique, brevetés au Canada et aux États-Unis et destinés à la séparation chromatographique. Ces polymères présentent une stabilité thermique et microbiologique remarquable, permettent de réaliser la séparation plus fine de plusieurs composés, élargissent le domaine d'application de la chromatographie et peuvent être regénérés, hydratés et deshydratés à plusieurs reprises. Écrire à: Novex CH-5, Novex Foreign Trade Co. Ltd., Mise au point et commercialisation des inventions, C.P. 62, Budapest H-1364 (Hongrie) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Budakeszi ut 55/dP/8, 1021 Budapest (Hongrie).

Hydrofoil Equipped Waterplanes/316

Canadian inventor offers the Canadian manufacturing rights, and the opportunity to seek foreign patents to market in Canada and abroad, a one-man microlight flying boat on which the Canadian patent has been allowed. The boat uses a hydrofoil to reduce power requirements and improve performance markedly over conventional flying boats, pontoon adaptations of land planes, etc. It is claimed that 1) the novel aspects of the product provide a very high strength-to-weight

Hydravions équipés d'hydroglisseur/316

Un inventeur canadien offre les droits de fabrication et la possibilité d'acquérir les brevets étrangers pour la commercialisation, au Canada et ailleurs, pour un hydravion ultraléger monoplace qui fait déjà l'objet d'un brevet canadien. L'appareil comporte un hydroglisseur qui demande moins de puissance et qui améliore considérablement les performances par rapport aux hydravions classiques, aux avions sur flotteurs, etc. D'après l'inventeur, 1) ce nouveau dispo-

ratio and a very clean (streamlined) configuration which includes enclosed pilot accommodation; 2) that it is strictly a recreation vehicle (although there is no reason, other than capital required, that the development could not be applied to commercial freight and passenger aircraft for use off water; and 3) that models have been flown under radio control and are wholly successful. The inventor can provide technical expertise, based on this success. Write: Mr. Frank S. Gue, 2252 Joyce Street, Burlington, Ontario L7R 2B5 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.

sitif assure un meilleur rendement résistance/masse et une configuration plus lisse (aérodynamique), l'habitacle étant aussi fermé; 2) c'est strictement un véhicule de loisirs (bien que rien, à part l'investissement financier, n'empêche d'en étudier l'adaptation pour des aéronefs commerciaux, transportant du fret ou des passagers, basés sur l'eau), et 3) des maquettes ont été essayées en radiocommande et les résultats ont donné entière satisfaction. L'inventeur peut fournir l'expertise technique, basée sur ces succès. Écrire à: M. Frank S. Gue, 2252 Joyce Street, Burlington (Ontario) L7R 2B5 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.

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

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

Liste des brevets canadiens disponibles pour octroi de licence ou vente au Canada délivrés en mars 1982

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

Manufacture of a Ceramic Indirect Heat Exchanging Element/316

Élément d'échange indirect de chaleur en céramique, obtenu par extrusion d'un matériau céramique cru selon une configuration à canaux parallèles, perçage aux extrémités d'une première série des canaux d'orifices d'admission et d'évacuation d'un fluide, d'axes perpendiculaires à la direction des canaux, et cuisson de l'élément. Les orifices d'admission et/ou d'évacuation sont obtenus par coupe oblique sur l'extrémité des rangées de ces canaux, dégageant une ouverture d'admission ou d'évacuation perpendiculairement à la direction commune des canaux. Application aux échangeurs de chaleur pour moteurs à turbine. **BREVET 1,118,988**. Écrire à: CERAVER, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Procédé de fabrication d'un élément d'échange indirect de chaleur en matière céramique/316

Sensing Unit/316

A sensing device for use with a pressure gauge for measuring pressure in a mud carrying oil well pipe or the like includes a hollow cylindrical casing one end of which is mounted in the pipe and the other end of which is connected to the gauge. A piston slidably mounted in the casing divides the interior of the casing into lower and upper chambers, the pressure of mud in the lower chamber being transmitted by the piston and hydraulic fluid in the upper chamber to the gauge, whereby the gauge registers the pressure of the mud without direct contact therewith. **PATENT 1,119,015**. Write: Lyle Nash, Box 1053, High River, Alberta T0L 1B0 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.

Capteur/316

Casing for Building Works/316

The invention is with respect to a casing for building works, more specially for buildings, having an absorbing and heat exchange layer, which on operation for heating the building, has the function of stopping the loss of heat from the inside to the outside and, on cooling operation, of stopping the transfer of heat from the outside to the inside. Furthermore, a glass-clear or opaque outer case or casing may be placed spaced from the absorbing and heat exchange layer. **PATENT 1,119,158**. Write: Hans Haugeneder, Unterer Markt 8, A-3335 Weyer/Enns, Austria; Erich Panzhauser, Gentzgasse 129, A-1180 Wien, Austria and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Luegerring 10, A-1010 Vienna, Austria.

Enveloppe pour bâtiment en voie de construction/316

Method and Apparatus for Measuring a Gaseous Anhydride in a Gas Containing Oxygen/316

L'invention a pour objet une méthode ainsi qu'un dispositif pour détecter un anhydride gazeux et mesurer sa concentration au sein d'un gaz contenant de l'oxygène. Cette méthode comprend les étapes suivantes: (a) formation d'une jonction électrolytique par contact avec un premier élément électrolytique solide contenant des oxy-anions de l'anhydride à détecter et un second élément électrolytique solide conducteur par des ions $O^{=}$, tel que la zircone; (b) mise en contact de cette jonction électrolytique avec le gaz contenant l'anhydride gazeux à détecter de façon à former une jonction triple; (c) création au sein de cette jonction triple d'une différence de potentiel mesurable à l'aide de deux électrodes de référence en contact avec les premier et second éléments électrolytiques respectivement par fixation d'un potentiel au voisinage de chacune de ces électrodes de référence qui sont elles-mêmes spacialement éloignées de la jonction triple; (d) chauffage de la jonction triple à une température telle qu'une variation logarithmique de la concentration de l'anhydride à détecter produit une variation proportionnelle et sensiblement linéaire de la différence de potentiel au sein de la jonction, cette température étant inférieure aux températures de fusion des premier et second éléments électrolytiques; et (e) mesure de ladite diffé-

Méthode et dispositif pour détecter et mesurer la concentration d'un anhydride gazeux au sein d'un gaz contenant de l'oxygène/316

rence de potentiel à l'aide d'un détecteur potentiométrique relié aux électrodes de façon à ainsi obtenir une mesure de la concentration de l'anhydride à détecter. Cette méthode ainsi que le dispositif, sont notamment utilisables pour la détection d'anhydrides de soufre ou de carbone. **BREVET 1,119,249**. Écrire à: IREQ Institut de Recherche de l'Hydro-Québec, 1800 Montée Ste-Julie, Varennes, Québec J0L 2P0 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.

Multiple Access Fac-Simile Receiver/316

Récepteur de fac-simile à accès multiples/316

Récepteur de fac-similé à accès multiples à partir de plusieurs lignes téléphoniques, comportant un circuit unique d'impression de document à partir des signaux reçus des différentes lignes, un circuit de jonction par ligne téléphonique, une mémoire pour l'enregistrement des signaux issus des lignes téléphoniques raccordées et un circuit de commande de chargement de la mémoire au rythme défini par le débit des signaux en ligne et le nombre de lignes raccordées et de déchargement de la mémoire pour la restitution des documents correspondants, l'un à la suite de l'autre, par le circuit unique d'impression. **BREVET 1,119,284**. Écrire à: Compagnie Industrielle des Télécommunications Cit-Alcatel, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Binary Information Transmission Method and Coding and Decoding Devices Therefor/316

Procédé de transmission d'informations binaires et dispositifs de codage et de décodage correspondants/316

L'invention porte sur un procédé de transmission d'informations binaires cadencées à une fréquence F, un dispositif de codage et un dispositif de décodage. Selon l'invention, une information binaire 1 est traduite par une impulsion dans une moitié du moment binaire correspondant, une information 0 est traduite par une absence d'impulsion dans le moment binaire correspondant cependant, k informations O de rangs respectifs définis appartenant à une séquence de m informations O successives sont chacune traduite par une impulsion dans l'autre moitié du moment binaire correspondant. Application à la transmission d'informations binaires en particulier sur une liaison à fibres optiques. **BREVET 1,119,302**. Écrire à: Compagnie Industrielle des Télécommunications Cit-Alcatel, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Smolder and Flame Resistant Insulation Materials, Composition and Method/316

Matériaux isolants résistant à l'entretien et à la propagation du feu, et leur composition et mode de production connexes/316

A flame resistant-smolder resistant cellulosic insulation material, method of treating loose-fill cellulosic material and composition for imparting flame resistance and smolder resistance to such materials are disclosed with the combination of from about 2 to 9% sulfur and from about 10 to 25% flame retardant uniformally distributed in the cellulosic insulation material based on the weight of cellulosic material. **PATENT 1,119,353**. Write: Mr. George Kudravetz, Product Manager, U.S. Department of Commerce, National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Apparatus for the Manufacture of an Open Celled Structure from Extruded Ceramic Material, and Method for Making Said Apparatus/316

Dispositif pour la fabrication de corps à structure alvéolaire par extrusion d'une matière céramique, et procédé de fabrication dudit dispositf/316

Le dispositif selon l'invention est remarquable par le fait qu'il est essentiellement conçu en une succession d'éléments coaxiaux emboîtés les uns autour des autres, que deux éléments adjacents définissent entre eux des canaux longitudinaux (2) débouchant en leur extrémité aval dans un canal annulaire (3), et que lesdits éléments coaxiaux emboîtés présentent, inférieurement et au niveau des canaux annulaires, des encoches (4) essentiellement rayonnantes et de largeur inférieure à la largeur des canaux longitudinaux, de sorte que la matière céramique s'écoulant par lesdits canaux longitudinaux soit régulièrement répartie dans les canaux annulaires et les encoches rayonnantes pour former directement à l'extrusion un corps à structure alvéolaire. Application aux structures céramique en nid d'abeilles à parois minces. **BREVET 1,119,392**. Écrire à: Ceraver, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Wet Carbonizing of Peat with Exhaust Gas Purification and Heat Recovery/316

Carbonisation de la tourbe par voie humide, avec épuration des gas d'échappement et récupération de la chaleur/316

A process in which the raw peat is first formed into a pumpable aqueous suspension in a suspension-preparing apparatus. The peat suspension is preheated in series-connected heat exchangers and in a pre-heating tower, wet carbonized in a reactor into which steam from a steam boiler is introduced at a temperature of 200°C, cooled by heat exchanger in the preheating tower, mechanically dewatered in a dewatering apparatus and dried in a drying apparatus, with hot exhaust gases from the steam boiler being introduced as drying gas into such drying apparatus. An important facet of this process is that the exhaust gases from the steam boiler are employed as drying gas in the drying apparatus and the exhaust gas, carrying dust and water vapour, leaving the drying apparatus is purified and cooled in a wet separator. Part of the water vapour in the exhaust gas is condensed in the wet separator and polluted water coming from the dewatering apparatus is cooled by heat exchange with the raw peat suspension in the heat exchanger thereupon is introduced as washing water into the wet separator. The dust-laden and heated drain water from the wet separator is returned to the suspension-preparing apparatus to be used as dilution water therein. In this matter, efficient exhaust gas purification relating to equipment of the plant is combined with product and heat recovery in the plant. **PATENT 1,119,407**. Write: JP-Energy Oy, Pohjoinen Hesperiankatu 37A, SF-00260 Helsinki 26, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Camera Hold Steady Strap/316

Courroie de fixation de caméra/316

A photographer's accessory for holding a camera steady during picture taking; the device including a strap having a buckle for length adjustment, an elastic on one end of the strap being connected to a camera, and the other end of the strap having either a belt hook or else a foot stirrup. **PATENT 1,119,444**. Write: Christiaan Reeberg, c/o Richard L. Miller, 3612 Woolworth Building, New York, N.Y. 10007 and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York, N.Y. 10020-1175, U.S.A.

Electro-Hydraulic Vehicle/316

Véhicule électro-hydraulique/316

On sait qu'un véhicule électrique a déjà été mis au point. Le coeur de ce véhicule est un moteur électrique qui est alimenté par des batteries et la façon de recharger les batteries pour économiser l'énergie s'effectue lors du freinage, entraînant ainsi un ou des générateurs. Dans la présente invention, le véhicule est muni d'un moteur hydraulique. La pression hydraulique est accumulée par un système de circulation et d'accumulation lors du freinage ainsi que par des amortisseurs de chocs transformant toute vibration de la suspension en une pression hydraulique. Lorsque la pression hydraulique ainsi accumulée sera épuisée, un moteur électrique produira une nouvelle pression hydraulique nécessaire à la demande du moteur hydraulique. **BREVET 1,119,528**. Écrire à: Michel Ouellette, 48, Hôtel de Ville, Dorion, Québec J7V 1N1; Marcel Ouellette, 105, Edmond, Châteauguay, Québec J6K 1B2 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.

Hand Drive Assembly for a Wheel Chair/316

Commande manuelle pour fauteuil roulant/316

A hand drive assembly for a wheelchair is disclosed. The assembly comprises a main axle adapted to be installed on each side of a regular wheelchair for rotatably mounting the wheel of the chair, a main gear rotatably mounted on the main axle and adapted to be coupled to the wheel, an elongated plate mounted upwardly at one end of the main axle and at a predetermined angular position with respect to the vertical ahead of the wheel, a driving axle rotatably mounted at the other end of the gear plate, a driving gear secured to the driving axle, a hand drive ring coupled to the driving axle for driving such driving gear, and an intermediate gear rotatably mounted on the gear plate and coupling the driving gear to the main gear to transmit motion of the hand drive ring to the regular wheel of the wheelchair. **PATENT 1,119,636**. Write: Hans Gilles, 249 Springhill, Rosemere, Quebec J7A 3J2 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.

Rhythm Recovery Device/316

Dispositif de récupération de rythme/316

La présente invention concerne la récupération, à la réception, du rythme d'un signal numérique synchrone transmis par une modulation linéaire. Elle a pour objet un dispositif se connectant à la suite d'un démodulateur synchrone en quadrature et comportant un oscillateur commandé en tension centré sur la fréquence de rythme et asservi simultanément, par une boucle à verrouillage de phase à deux entrées, sur les signaux en phase et en quadrature de sortie du démodulateur, l'un et l'autre ayant été redressés au préalable. Elle s'applique notamment dans les systèmes de transmission de données en modulation d'amplitude à bande latérale unique. **BREVET 1,119,677**. Écrire à: Compagnie Industrielle des Télécommunications Cit-Alcatel, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Wide-Band Transistorized Amplifier/316

Amplificateur transistorisé à large bande/316

L'invention est du domaine des amplificateurs transistorisés à large bande à contre-réaction mixte et à correction par régulation en avant. Selon l'invention, on prévoit un étage de correction par régulation en avant soit pour l'étage d'entrée de la cascade d'amplification, soit pour l'étage de sortie. L'invention est surtout applicable aux amplificateurs de ligne à large bande et à des fréquences allant jusqu'à 60 MHz. **BREVET 1,119,678**. Écrire à: Compagnie Industrielle des Télécommunications Cit-Alcatel, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Error-Compensating Amplification Stage/316

Étage d'amplification à compensation d'erreur/316

Dans un étage d'amplification comportant un amplificateur principal dont la sortie est reliée à la sortie de l'étage, on assure une compensation des erreurs par une branche de réaction reliée à la sortie de l'étage. La branche de réaction comporte un premier coupleur à deux entrées et une sortie combinant le signal d'entrée de l'amplificateur et son signal de sortie et élaborant un signal auxiliaire et un deuxième coupleur à deux entrées et une sortie combinant le signal d'entrée et le signal auxiliaire et élaborant un signal résultant constituant le signal d'entrée de l'amplificateur appliqué audit premier moyen de couplage, dans cette branche de réaction, la boucle fermée définie par les deux coupleurs et excluant l'amplificateur présente un gain voisin de + 1. Application: liaisons téléphoniques à longue distance. **BREVET 1,119,679**. Écrire à: Compagnie Industrielle des Télécommunications Cit-Alcatel, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Centralised Fac-Simile Transmission Installation/316

Installation de transmission centralisée de fac-simile/316

L'invention porte sur une installation de transmission centralisée de fac-similé fonctionnant en émetteur-récepteur et comportant un circuit d'analyse et un circuit d'impression de document. n lignes téléphoniques sont affectées à l'installation qui comporte n circuits de ligne, chacun à circuit de jonction à sa ligne et un modulateur, tandis que p mémoires temporaires, $p > n$, chacune de capacité correspondant à une page de document, sont chargées à partir du circuit d'analyse indépendamment de l'émission du contenu de chaque document enregistré sur une ligne ou sont chargées à partir des signaux reçus d'une ou plusieurs lignes indépendamment de la restitution de leur contenu par le circuit d'impression. L'installation permet l'émission ou la réception simultanée de signaux. **BREVET 1,119,711**. Écrire à: Compagnie Industrielle des Télécommunications Cit-Alcatel, 12, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Polypyrrolidone-Iodine Complex/316

Complexe polypyrrolidone-iode/316

A novel complex of polypyrrolidone, also known as nylon-4, with iodine is disclosed. The complex has biocidal properties exhibiting especially the fungicidal and bactericidal properties of free iodine but not its irritating and toxic properties. The complex may be formed with polypyrrolidone having any physical form such as a powder, pulp, film, fiber or molded article. Bandage material made from fabric woven from nylon-4 fibers and complexed with iodine is a particularly useful form. Dry powders, ointmants and other compositions for topical application may also be made. **PATENT 1,119,748**. Write: Carl E. Barnes, 482 Trinity Pass, New Canaan, Connecticut and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020-1175, U.S.A.

Article Stack Binder/316

Lieuse d'articles empilés/316

Apparatus for binding a load of articles including an elongate cable extending about the load, and a spring-loaded device operatively interconnecting opposite ends of the cable. A cable take-up drum is provided to adjust the effective length of the cable extending about the load and to deflect the spring to provide selected tightening of the cable about the load. Should the load change configuration the spring maintains the cable taut about the load. **PATENT 1,120,239**. Write: Timber Conversion, Inc., 6011 S.E. 72nd, Portland, Oregon 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.

Oil Tanker Segregated Ballast Peripheral Tank Grid/316

Réseau périphérique de réservoirs à ballast pour pétroliers/316

A plurality of narrow ballast tanks arranged around the periphery of diaphragms such as those disclosed in the inventor's U.S. Patent No. 4,117,796 "Double Sectioned Tank". The peripheral ballast tanks facilitate the construction, installation, operation, and maintenance of the diaphragms that segregate the cargo oil from the ballast water in the oil tanker in which they are fitted, and allow the tanker in which they are fitted to carry substantially more cargo than an identical externally

dimensioned standard segregated ballast tanker. The peripheral ballast tanks, which are located in the lower portion of the cargo tanks, in general are built along the longitudinal and transverse bulkheads and ship's sides, but they can also be arranged to sub-divide the lower portion of large cargo tanks, they, in effect, form a tank grid about the lower portion of the cargo tanks space, with the cells in the grid being suitable for the reception of the diaphragms. The diaphragms each consist of three main parts: (a) a vertically movable thin and flat partition, that can, if required, be buoyant in order that it may float on ballast water; (b) a mating but fixed partition rim fitted outside of the movable partition, as described below; (c) an elastomeric membrane sheet that is fitted between and attached to the movable partition in such a manner that the complete diaphragm forms an impervious barrier to oil or water attempting to pass from top to bottom or vice versa. Movable partition guide and securing means are also provided. By locating the fixed partition rim at mid-point of the movable partition travel on the sides of the peripheral ballast tanks, major savings of membrane material can be achieved. Compensatory steelwork can be built into the peripheral ballast tanks to replace material and structural strength lost due to steelwork removed to make room for the installation and operation of the segregating diaphragm. The peripheral tanks on the tanker's side, if of the required width, will be "protective ballast space" when the tanker is in the cargo loaded condition, as will the double bottom space beneath the diaphragm, if it is of suitable height. **PATENT 1,120,336**. Write: Patrick J. Strain, 27 Tanglewood Drive, Lynwood, Ottawa, Ontario K2H 6P5 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 Using a Low Temperature Freezing Softening and Abrasion Fluid/316

Méthode d'emploi d'un frigorigène à basse température pour ramollir ou éroder les gisements de sable bitumineux/316

A low temperature freezing fluid and method are used for year-round wearing away of bitumin deposits, such as those of the Athabaska Tar Sands, by a softening and/or abrasion process. Relatively small size particles of bitumin and its associated foreign matter are produced which enable separation of bitumin at greater speed, efficiency and thoroughness than present methods. Water solutions of calcium chloride having a freezing point down to -43°C and a specific gravity greater than that of bitumin are used as the fluid. Since bitumin deposits vary considerably in physical properties; optimum softening and/or abrasion efficiency and reduced particle size are achieved by either heating the fluid to 100°C to soften or refrigerating it to -43°C to harden the bitumin prior to spraying it at high velocity onto the deposit. At times, faster rates of softening and/or abrasion and reduced particle size are achieved by incorporating abrasion particles in the fluid. The fluid conveys bitumin, foreign matter and abrasion particles to a pool from which they are pumped to on site conditioning and separation tanks. After separation into components, bitumin and fluid are combined and pumped to a refinery wherein they are separated and bitumin upgraded to synthetic crude oil. The foreign matter and abrasion particles are pumped together with fluid to either an on site tailings pond or to recycle equipment. The fluid is recycled. **PATENT 1,120,416**. Write: Saul A. Eller, 17-41 166th Street, Whitestone, New York 11357 and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020-1175, U.S.A.

Spring Assisted Roller Skates/316

Patins à roulettes à ressorts hélicoïdaux/316

A roller skate intended for jumping includes a two-piece plate of adjustable length for supporting the foot of a skater, a pair of arms pivotally connected to the bottom of the plate, including front arms inclined slightly forwardly and rear arms inclined slightly rearwardly, with rollers on the bottom ends of the arms, and helical springs connecting the back edges of the front arms and the front edges of the rear arms to the bottom centre of the plate, so that downward pressure on the skate causes the arms to become more inclined and, when the springs pull the arms together to the less inclined positions, an upward impetus is given to the skater. **PATENT 1,120,509**. Write: Sophia Berta, 224 Queensland Drive SE, 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.

Plastic Non-Wax Ski Base and Methods for its Manufacture/316

Base plastique sans cire pour skis, et méthodes de fabrication connexes/316

A no-wax ski base of a composite material in which relatively harder particles are uniformly distributed in a plastic matrix. The harder particles are angularly oriented with respect to the gliding surface of the ski base to provide a unidirectional friction coefficient that combines good gliding properties in the ski forward direction with good grip properties in the backward or "kick off" direction of the ski. These friction properties are maintained throughout the entire life of the ski base irrespective of wear. A method for the manufacture of such ski base by extruding the plastic composite material through a split nozzle while causing it to flow substantially asymmetrically through the split nozzle to obtain the angular orientation of the harder particles in the plastic matrix is described. **PATENT 1,120,510**. Write: Andelslaget for Norsk Skiforskning, c/o Gunnar Bjertnaes, Madshus Skifabrikk A/S., Norway; Sentralinstitutt for industriell forskning, Forskningsveien 1, Oslo 3, Norway and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Postuttak, Oslo 1, Norway.

Carmats/316

Tapis pour automobiles/316

Durant l'hiver les automobilistes ajoutent sur le sol de leur voiture, un tapis de protection dont le rôle est d'empêcher l'eau et le calcium d'endommager le revêtement du sol. Jusqu'à présent, l'extrémité du pantalon du conducteur était inévitablement en contact direct avec l'eau sale, la neige, le calcium et la boue à l'état stagnant, sur ce tapis additionnel. Dans la présente invention, le pantalon n'est plus en contact avec ces éléments, puisqu'il est maintenu par des arêtes triangulaires proéminentes situées au fond d'une cuve dont la profondeur et le dessin permettent la rétention desdits éléments. Les côtés latéraux du tapis sont aussi pourvus de semblables arêtes. **BREVET 1,120,516.** Écrire à: André Dupont, 409, rue Marquette, Longueuil, Québec J4K 4G8 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.

Stackable Storage Drawers System/316

Système à tiroirs de rangement empilables/316

A system of storage drawers which is made of components adapted to interlock one another and thus be arranged in any of a plurality of different side-by-side and superposed layouts. The present stackable storage drawers system comprises a plurality of drawer carrying-case structures, storage drawers, tops and clips, with the drawer carrying-case structures being interconnected side by side as desired by the clips and superposed in interlocking engagement one over another and covered by an overlying top. Stops are also provided to maintain the drawers in retracted and open positions and yet provide for their complete removal. **PATENT 1,120,526.** Write: Meilleures spécialités de couture Ltée, 932 Fédéral Street, C.P. 333, Sherbrooke, Québec J1H 5M2 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.

Position-Sensitive Proportional Counter with Low-Resistance Metal-Wire Anode/316

Compteur proportionnel sensible à la position avec anode de fil métallique à faible résistance/316

A position-sensitive porportional counter circuit is provided which allows the use of a conventional (low-resistance, metal-wire anode) proportional counter for spatial resolution of an ionizing event along the anode of the counter. A pair of specially designed active-capacitance preamplifiers are used to terminate the anode ends wherein the anode is treated as an RC line. The preamplifiers act as stabilized active capacitance loads and each is composed of a series-feedback, low-noise amplifier, a unity-gain, shunt-feedback amplifier whose output is connected through a feedback capacitor to the series-feedback amplifier input. The stabilized capacitance loading of the anode allows distributed RC-line position encoding and subsequent time difference decoding by sensing the difference in rise times of pulses at the anode ends where the difference is primarily in response to the distributed capacitance along the anode. This allows the use of lower resistance wire anodes for spatial radiation detection which simplifies the counter construction and handling of the anodes, and stabilizes the anode resistivity at high count rates ($>10^6$ counts/sec). **PATENT 1,120,614.** Write: Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Bldg., Suite 1310, Philadelphia, Pennsylvania 19101, U.S.A.

Process for the Recovery of Cobalt from its Impure, Aqueous, in Particular Nickel-Bearing, Solutions and Catalyst Therefore/316

Méthode d'extraction du cobalt en présence dans sa forme impure dans des solutions aqueuses, notamment nickélifères, et dispositif de catalyse connexe/316

Cobalt is recovered as a finely-divided and anhydrous salt from impure, nickel-bearing, aqueous solutions of cobalt, by exposing the aqueous solution to oxidation at an elevated temperature in the presence of ammonia and the respective ammonium salt, the formation of cobalt (111) hexammine ions is catalysed with activated carbon or solid sulfides, a cobalt (111) hexammine salt is crystallized from the solution, the salt is separated from the solution and pyrolysed to form a cobalt (11) salt, and the released ammonia is returned to the oxidation stage. **PATENT 1,120,690.** Write: Outokumpu Oy, Toolonkatu 4, P.O. Box 280, SF-00101 Helsinki 10, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, P.O. Box 779, 00101 Helsinki, Finland

Rope Wick Applicator/316

Alimentation en eau des plantes par capillarité/316

A new apparatus and system for the systemic application of liquid chemicals to plants is disclosed. A soft woven nylon rope wick is used to convey chemical solution from a reservoir by means of capillary action. The rope apparatus, which is physically supported, is leveled and positioned to selectively contact certain plants as the wick is moved across an agricultural field. Thus chemical solution is deposited selectively only on contact with the wick. **PATENT 1,120,720.** Write: Mr. George Kudravetz, Product Manager, U.S. Department of Commerce, National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate General, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Peat Paper and a Method for its Manufacture/316

Papier de tourbe et méthode de fabrication/316

A peat paper for use in connection with planting, sowing or weed-control. The paper contains peat fibres, cellulose fibres and a bonding agent. The cellulose fibres form a sheet or web supporting the peat fibres and the peat fibres are loose, non-compressed fibres. The peat fibres are joined to the cellulose fibres and the dry formation process and by means of the bonding agent to form paper-like sheets or webs. These sheets or webs have a weight in the range of 100 to 350 grams per centimeter. The resulting paper is soft and, owing to its method of production, controlled amounts of additives, such as fertilizers, seeds, hormones and similar additives may be incorporated into the paper. **PATENT 1,120,759**. Write: Edet Aktiebolag, Vastra Roten 21, S-463 00 Lilla Edet, Sweden and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm 16, Sweden.

Waste Heat Recovery System and Method/316

Système et méthode de récupération de la chaleur d'échappement/316

A waste heat recovery system and method for recovering heat from exhaust gases flowing through an exhaust stack of flue from a source of heat. The recovery system includes a heat exchanger located within a bypass assembly that includes a pair of conduits connected to the exhaust stack, and a blower for producing a flow of exhaust gases from the exhaust stack through one of the conduits and the heat exchanger and then back to the exhaust stack through the other of the conduits. The method of the present invention includes the moving of at least a portion of the exhaust gases in the exhaust stack through the bypass assembly and returning such portion back to the exhaust stack. **PATENT 1,120,802**. Write: Elwood C. Giberson, 4110 Greenwood Drive, Des Moines, Iowa 50312 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.

Catalyst Delivery System for Combustion Chamber/316

Injecteur de matière de catalyse dans une chambre de combustion/316

A system for delivering a catalyst into a forced draft entry port of a chemical reaction chamber, such as a fossil fuel combustion chamber, includes a container having an aqueous solution of the catalyst. A suction line extends from an air space above the solution to the entry port. An intake line at atmospheric pressure enters the container and has an end submerged below the surface of the aqueous solution through a float for maintaining the end at a predetermined distance below the surface and thereby establishing a predetermined back pressure. A layer of oil floats on top of the aqueous solution and may contain a second dissolved catalyst. Air from the intake line bubbles up through the aqueous solution and the oil layer absorbing minute quantities of the catalysts which are carried by the air into the reaction chamber. Platinum and manganese catalysts improve the efficiency of fossil fuel combustion such as that of the home oil burner. **PATENT 1,120,849**. Write: B. Joel Robinson, 501 Boylston Street, Brookline, Massachusetts and send a copy of your initial correspondence to Canadian Consulate General, 500 Boylston Street, Boston, Massachusetts 02116-3775, U.S.A.

Ignition Override System for Motor Vehicles/316

Système de neutralisation du système de contact d'allumage pour véhicules automobiles/316

An ignition override circuit for use in a motor vehicle includes a switch connecting the battery and the ignition coil; a coil for closing the switch, the coil connecting the switch to the vehicle park switch; and a timer between the switch and coil; whereby, with the vehicle engine running and the park switch closed, setting of the timber energizes the coil to close the switch and permit continued operation of the vehicle engine for the time set on the timer even with the car turned "off" and the key removed. **PATENT 1,121,034**. Write: William Fidyk, 2344 - 54th Avenue S.W., Calgary, Alberta T3E 1M1 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.

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NASA
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Energy Efficient Lumber Dry Kiln Using Collectors and Refrigeration System/316

Four de séchage du bois à haut rendement énergétique/316

Filed June 24, 1981, by the Department of Agriculture. The patent application relates to a method and apparatus to control temperature and humidity in drying a material, for example green lumber, including a chamber to receive the lumber in stacked relation with air flow space between individual lumber pieces, a refrigeration system having a refrigerant compressor, evaporator and condenser, blower means to circulate air from the condenser over and through a stack of lumber, and conduit means to communicate with the chamber for emission of air passing over the stack of lumber. Write: **PAT-APPL-6-276 764**, NTIS.

Rudder Pedal Grip Assembly/316

Pièce de fixation des pédales de direction/316

Filed February 18, 1981, by the Department of the Air Force. This invention relates generally to pedal grips and, more particularly, to a unique grip assembly for a rudder pedal, such as a rudder pedal of an aircraft or of an aircraft flight simulator. In testing the flight control systems of aircraft, and of aircraft flight simulators (hereinafter referred to as 'flight simulators'), the testing of the rudder control system must be included. It is apparent that what is needed in the art and is not

presently available, is a rudder pedal grip that is non-destructive to the rudder pedal, that is reusable, and that is universally fitting, i.e., readily useable or adaptable for use on any rudder pedal of any aircraft or flight simulator. The present invention fulfills the above-mentioned need; and also, unlike prior art rudder pedal grips, makes possible the application of a load (i.e., force or pressure) to the rudder pedal not only through the use of the pilot's foot, but also through the use of any appropriate load applier. Therefore, this unique rudder pedal grip constitutes a significant advance in the state-of-the-art. Write: **PAT-APPL-6-235 488**, NTIS.

Inflatable, Inert Gas-Purged, Welding Chamber/316

Chambre gonflable de soudage à gaz inerte/316

Filed May 18, 1981, by the Department of the Air Force. An inflatable, inert-gas purged welding chamber assembly ideally suited for use in welding workpieces made of a metal (e.g., titanium), or of an alloy, which is susceptible to atmospheric contamination during welding. The welding chamber of the assembly is defined by a collapsible, reusable, inflatable member (e.g., a polyethylene bag) that is releasably connected to a closeable opening in a wall member. The inflatable member, while in a collapsed condition and while containing the workpieces to be welded and the accessories therefore (e.g., a welding torch, extra tungsten electrodes, and filler wires) on a shelf protruding from the wall member, is purged of air (i.e., the ambient atmosphere) by the use of an inert gas (e.g., argon), thereby inflating the collapsed member and creating an inert gas environment in which the air-contaminable workpieces can be welded without fear of contamination. The enormous time consumed, the inert gas wasted, and the high cost of the rigid welding chambers, and of the shielding fixtures, that necessarily were used in the prior art to accomplish welding in an inert gas environment are eliminated by the use of this collapsible, reusable, inexpensive, and inflatable welding chamber. Write: **PAT-APPL-6-264 930**, NTIS.

Flow Attenuator for Use with Liquid Cooled Laser Mirrors/316

Régulateur de débit pour miroirs laser refroidis/316

Filed June 10, 1981, by the Department of the Air Force. This invention relates to a flow attenuator which is utilized to direct coolant flow to liquid cooled laser mirrors, and in so doing substantially eliminates the liquid flow induced jitter generally associated with such flow. The flow attenuator has a housing in which is formed a centrally located passageway. The passageway branches into a plurality of substantially radially extending contoured chambers. A distribution screen is removably interposed between the passageway and the chambers in order to substantially reduce the 'noise' within the coolant liquid as it passes through the attenuator to the laser mirrors. Write: **PAT-APPL-6-272 441**, NTIS.

Color Moving Target Simulation Apparatus/316

Simulateur de cible mobile couleurs/316

Filed June 12, 1981, by the Department of the Air Force. A color moving target simulation apparatus combines an enlarged color aerial photograph with a miniature moving target to achieve an accurate simulation of a real world observation from an altitude above the moving target. The color photograph is mounted on a stationary substrate and the target is attached to an endless wire which is moved across the photograph. The wire extends between parts of a motorized pulley assembly mounted on opposite ends of an arm which may be rotatably adjusted to various positions in a plane parallel to the substrate and photograph. Write: **PAT-APPL-6-272 835**, NTIS.

Thermally Isolated Structural Support Link/316

Élément de support structural à isolation thermique/316

Filed June 12, 1981, by the Department of the Air Force. This invention relates generally to support elements, and more particularly, to a support link which is primarily used for structural support in an environment in which thermal isolation is an essential consideration. The instant invention overcomes the problems encountered in the past by providing a structural support link which provides not only structural support but also thermal isolation between component assemblies. An example of such an assembly would be the stages of a heat pipe radiator with a high strength axial load path. The structural support link of this invention is made up of an epoxy glass or fiberglass tube, a pair of epoxy glass or fiberglass bearing housings, and each housing supporting therein a spherical monoball bearing. Write: **PAT-APPL-6-272 861**, NTIS.

A Pulsed Laser Radar Apparatus Utilizing Homodyne Detection/316

Radar à laser à impulsions utilisant la détection homodyne/316

Filed June 17, 1981, by the Department of the Air Force. A pulsed laser radar apparatus utilizing a Q-switched laser unit to generate laser pulse signals including a low intensity trailing tail. The trailing tail is utilized to provide a local oscillator signal that is combined with the target return signal prior to detection in a heterodyned detector unit. Write: **PAT-APPL-6-274 698**, NTIS.

Radiant Contrast Target/316

Cible rayonnante à contraste/316

Filed June 30, 1981, by the Department of the Air Force. This invention relates generally to the field of electro-optical sensor testing and evaluation, and more particularly to the field of large area variable contrast targets useful for the evaluation of high resolution electro-optical sensors. Specifically, the present invention relates to passive radiant contrast targets for electro-optical sensor evaluation, and more particularly, for the calibration of infrared (IR) sensors. In accordance with the foregoing principles and objects of the present invention, a radiant contrast target is provided for operation as a passive target or which may be configured to emulate an active target for use in evaluation of high resolution electro-optical sensors. The target comprises a plurality of parallel mounted radiance panels which may be individually rotated to a desired reflective configuration to provide a cold passive target with respect to background radiation, or, when used as a reflector in conjunction with a radiation source, may provide hot active target emulation over a wide range of thermal contrasts. Write: **PAT-APPL-6-279 136**, NTIS.

Load Proportional Antibacklash Gear Drive System/316

Système d'engrenages dont le jeu est proportionnel à la charge/316

Filed July 7, 1981, by the Department of the Air Force. A novel load proportional antibacklash gear drive system is provided wherein each portion of a split opinion gear is provided with a pressure chamber connected to a torque sensor and servo control unit for controlling the pressure applied individually to each split gear portion, against opposing tooth faces of the driven gear. The servo control unit provides high pressure (hydraulic or pneumatic) to a first split gear portion for drive in one direction while providing low pressure to the second split gear portion in the opposing rotational sense to maintain contact of the split gear with both faces of the driven gear at all times, thereby eliminating backlash. Upon reversal of the direction of rotation of the gear system, the servo unit provides high pressure to the second split gear portion which then acts as the driving gear, and maintains low pressure to the first split gear portion to maintain it in contact with the driven gear to prevent backlash upon reversal of the direction of drive of the gear system. Write: **PAT-APPL-6-281 148**, NTIS.

Load Proportional Antibacklash Two-Step Gear Drive System/316

Système d'engrenages deux étages dont le jeu est proportionnel à la charge/316

Filed July 7, 1981, by the Department of the Air Force. A novel load proportional antibacklash two-step gear drive system utilizes, on the idler shaft to transmit torque from a drive gear to the driven gear, a split opinion with each opinion portion provided with a pressure chamber connected to a torque sensor and servo control unit for controlling the pressure applied individually to each split gear portion, against opposing tooth faces of the drive gear and the driven gear. The servo control unit provides high pressure (hydraulic or pneumatic) to a first split gear portion for transmitting torque from the drive gear in one direction while providing low pressure to the second split gear portion in the opposing rotational sense to maintain contact of the split gear with both faces of the drive gear at all times, thereby eliminating backlash. Upon reversal of the direction of the gear system, the servo unit provides high pressure to the second split gear portion which then acts as the torque transmitting gear, and maintains low pressure to the first split gear portion to maintain it in contact with the drive gear to prevent backlash upon reversal of the direction of drive of the gear system. Write: **PAT-APPL-6-281 149**, NTIS.

Gallium Arsenide-Germanium Heteroface Junction Device and Fabrication/316

Principe et fabrication d'un dispositif à hétérojonction arséniure de gallium-germanium/316

Filed July 8, 1981, by the Department of the Air Force. This invention relates generally to semiconductor devices having GaAs/Ge heteroface junctions and related manufacturing processes, and more particularly in one embodiment to multi-junction solarcells and fabrication thereof. Many types of heteroface junctions have been fabricated. Generally these junctions have been used for ultra high speed switching, microwave amplification, and binary memory. III-V/Ge heterofaces, in particular, have been investigated including theoretical analysis and fabrication approaches. Write: **PAT-APPL-6-281 437**, NTIS.

Electro Fluidic Actuator/316

Positionneur électrohydraulique/316

Filed April 10, 1980, by the Department of the Army. An electro-hydraulic (EH) actuator for converting electrical inputs into hydraulic output signals is described. The actuator features a pressure balanced design which permits operation at high absolute pressures without performance degradation. Internal portions of the EH actuator are filled with a non-conducting fluid, while a flexible diaphragm provides a movable interface between the fluid and the environment in order to equalize the internal and external pressures on the actuator. Write: **PAT-APPL-6-142 547**, NTIS.

Air Tunnel Device for Thermohygrometer/316

Soufflerie à air pour thermohygromètre/316

Filed October 3, 1980, by the Department of the Army. An air tunnel device is provided for use in combination with a thermohygrometer of the type where the change of resistance of the probe in response to changes in the ambient atmosphere is used to measure the temperature and humidity of the atmosphere. The device includes a housing which defines an air passageway therethrough, a probe support for mounting the probe of the thermohygrometer so that the probe is exposed to the air passagement in the housing and a fan mounted in the housing below the probe support for drawing air into the air passageway and thus providing air flow at a constant velocity past the probe. Write: **PAT-APPL-6-193 772**, NTIS.

5-Alkoxy-8-Quinolinamines for the Broad-Spectrum Treatment of Malaria/316

Les 5-alkoxy-8-quinoléinamines et le traitement en spectre large du paludisme/316

Price per copy from NTIS: PC U.S. $9.00/MF U.S. $4.00, filed January 29, 1982, by the Department of the Army. Improved means for the chemotherapy of malaria have been achieved with 5-alkoxy-primaquine analogues. These primaquine-related compounds afford improvement in the chemotherapy of malaria by exerting plasmodicial action on malaria parasites which may be present in either the blood, formed tissues, or blood and formed tissues of the mammalian host. Such broad and practical spectrum of effectiveness distinguishes the said primaquine analogues, which may be administered parenterally or perorally to infected animals. Write: **PAT-APPL-6-229 487**, NTIS.

Bias-Compensated, Ionization Sensor for Gaseous Media and Method for Attaining Proper Bias for Same/316

Détecteur d'ionisation à compensation préférentielle pour les milieux gazeux et méthode pour atteindre la polarisation appropriée/316

Filed May 18, 1981, by the Department of the Army. This invention relates to an ionization detector unit innovatively adapted to provide mobility to the unit and to render it especially suitable for convenient field use in point-source sampling and monitoring of the compositional characteristics of a gaseous medium such as, for example, the ambient atmosphere, and in emitting a discernible electrical signal which in response to a perceptible change in the compositional characteristics in the medium being monitored by the detector will be altered sufficiently to activate, or trigger, a suitable alarm or warning mechanism. The detector unit includes an ionization sensor cell for emitting an output signal and is powered by a suitable electrical source such as, for example, a miniature power source, and means for delivering or feeding to the sensor cell a representative stream or flow of the gaseous medium to be ionization monitored, and features a method and means for effectively compensating for variations and/or fluctuations in the electrical output signal emitted by the sensor cell as a consequent result of variations and/or fluctuations occurring in the rate of flow of the medium being delivered to and monitored thereby. The featured means is in the form of a low-voltage, battery-operated, bias device. Write: **PAT-APPL-6-264 873**, NTIS.

Towbar Assembly/316

Barre de remorquage/316

Filed May 22, 1981, by the Department of the Army. The patent application relates to a towbar assembly wherein two individual towbars are arranged in a V-configuration between a towing vehicle and a towed vehicle. The leading ends of the towbars have special end connectors that hook around a single towing pintle so that each towbar carries approximately the same tensile loading irrespective of changes in vehicle pitch or roll attitude. Each towbar is essentially independent of the other towbar, whereby the towbar loadings are essentially in the direction of the bar longitudinal axis; bending forces are to a great extent eliminated. The invention is designed primarily for use in towing large heavy vehicles weighing in excess of fifty tons. Write: **PAT-APPL-6-266 233**, NTIS.

Germicidal Rinse Formulation/316

Formulation germicide de rinçage/316

Filed June 8, 1981, by the Department of the Army. A dry, free-flowing germicidal rinse formulation for sanitizing food service equipment, food contact articles, and fresh fruits and vegetables containing a chlorinated cyanurate compound such as sodium or potassium dichloroisocyanurate, an organic acid such as tartaric or succinic acids, a surfactant and an acid phosphate salt. In solution the formulation has germicidal activity against pathogenic bacteria, viruses, and amoebic cysts. Write: **PAT-APPL-6-271 294**, NTIS.

Tapered Roller Bearing/316

Roulement à rouleaux coniques/316

Filed June 26, 1981, by the Department of the Army. The patent application describes a resilient hollow annular frustroconical roller bearing whose wall thickness varies according to the roller diameter. Any abnormal load placed upon the roller causes an increase area of contact between the roller and the opposing race surfaces. The hollow annular construction of the bearing is such that the load causes the roller to be stressed substantially uniformly along its entire length. Write: **PAT-APPL-6-277 477**, NTIS.

Speed Reducer/316

Démultiplicateur/316

Filed June 13, 1981, by the Department of the Army. The patent application describes a speed reducer that includes two meshed gear members having different numbers of teeth thereon to provide a differential movement that is small relative to the motion of the input member. One of the geared members is a wobble plate engaged by a presser member carried by the input shaft. As the input shaft rotates, the presser member travels around the wobble plate near its outer peripheral edge, thereby forcing successive areas of the plate to move toward the other gear member. Cam action of the teeth on the two gear members produces the beforementioned differential motion. Write: **PAT-APPL-6-282 895**, NTIS.

Technique for Increasing Laser Energy on Target/316

Technique pour accroître l'énergie transmise à une cible par un faisceau Laser/316

Filed July 31, 1981, by the Department of the Army. The propagation of a high power laser beam (either cw or pulsed) through the atmosphere is dependent on many factors. These factors include the laser phase distributions, laser amplitude distribution, laser wavelength, atmospheric turbulence, molecular absorption, molecular scattering, aerosol absorption, and aerosol scattering. If the power at the laser is sufficiently low such that no substantial heating of the atmosphere results, the power density at the target is proportional to the laser power and one is in the linear regime. However, if substantial heating of the atmosphere occurs due to absorption of the laser energy by the atmosphere, an increase in the laser power beyond a certain critical value can actually result in a decrease in the power density at the target and one is in the nonlinear regime. This particular nonlinear effect is called thermal blooming. It is the object of this invention to supply a high energy system which overcomes the difficulties of previous lasers to supply more energy on the target. Write: **PAT-APPL-6-288 719**, NTIS.

Right Circular Substrate Packaging/316

Circuits intégrés cylindriques/316

Filed August 3, 1981, by the Department of the Army. In the past, microelectronics have basically been packaged on flat surfaces and therefore into shapes that do not take full advantage of the circular shape of a missile. Therefore, it can be seen that the higher packaging density of approximately 30%, due to a circular shape with ease of interconnection and sealing in structural assembly to other missile components, is needed. In accordance with this invention, a circular packaging device is provided which includes a multiplicity of concentric cylinders that are configured and assembled with electronic components on the outside and/or inside surfaces of the cylinders with the cylinders being spaced with insulation spacers between the cylinders and with end caps for opposite ends of the cylinders with lead connections mounted in the end caps for connecting to individual circuits mounted on the cylinders and for providing for interconnections through the assembly. Write: **PAT-APPL-6-289 606**, NTIS.

Compass/316

Compas/316

Filed August 4, 1981, by the Department of the Army. This invention relates to a non-magnetic compass for use in a moving military land vehicle, comprising a rapidly rotating platform having a north star-seeking columnar element that carries a sun-seeking telescope. Fibre optic bundles transmit sun rays from the telescope to a selected light sensor in a stationary circular sensor system concentric with the platform rotational axis. During one instant during each rotating cycle of the platform the telescope will sight the sun while the columnar element is simultaneously oriented to the north star; lights rays are transmitted from the scope to a north-oriented sensor in the sensor system. The columnar element and telescope are periodically adjusted to take into account the geographical location of the vehicle and time of year. Write: **PAT-APPL-6-289 939**, NTIS.

Segmented Clutch Plates/316

Plateaux d'embrayage segmentés multiples/316

Filed August 12, 1981, by the Department of the Army. The patent application relates to a segmented annular clutch plate for use in any conventional clutch plate mechanism. The segments are of equal arcuate dimension so that they are interchangeable. Each segment possesses the same annular uniformily serrated surface. Each segment may be provided with a key-slot mating connection to restrict the radial movement of the clutch plate while in operation. Write: **PAT-APPL-6-292 308**, NTIS.

Fine Adjusting Mechanism for a Level Platform/316

Mécanisme de réglage de précision pour une plate-forme de niveau/316

Filed August 17, 1981, by the Department of the Army. The mount for the Ground Locator Laser Designator (GLID) incorporates a leveler platform which is leveled roughly by eye, then locked in position. Lock-up in position is accomplished by clamping a ball socket joint using screw threads. A captive locking plate is used to adjust the preload on the ball socket joint. This invention relates to an improved means of adjusting the locking plate by incorporating teeth around the periphery of the locking plate and an access or leverage hole which permits a common prying tool such as a screwdriver to turn and adjust the locking plate to apply the proper preload to the ball socket joint. Write: **PAT-APPL-6-293 580**, NTIS.

Vertical Field Effect Transistor with Barrier Gate/316

Transistor à effet de champ vertical avec grille à barrière/316

Filed August 21, 1981, by the Department of the Army. A high power frequency field effect transistor is achieved with a vertical structure of gallium arsenide including a semi-insulating substrate, a conductive layer over the substrate, a narrow-central post having small metal gate electrodes on each side, metal drain electrodes on the conductive layer spaced from the central pose and a metal source electrode supported on the central post. A deep channel around the post separates the metal drains, gates and source. Increased power is obtained from a cellular unit including two parallel source stripes, four gates and three drains. The drains are connected together by the conductive layer and a drain pad at one end, and the gates are connected at the other end by a gate pad on an outer region of the substrate. The gate connections to the pad are isolated from the conductive layer by a bridge over a space etched in the lower layer. A method for fabrication of this structure is also provided. Write: **PAT-APPL-6-295 191**, NTIS.

Constant Current Intruder Detection System/316

Système à courant constant de détection des intrusions/316

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed August 31, 1981, by the Department of the Army. An electronic detection system for detecting intruders employs a transmission line as a sensing element. In one embodiment the transmission line is a modified surface-wave transmission line, for example, a Goubau line, which is positioned about the perimeter of the area to be protected. An intruder in the field of the line causes an RF reflection back toward the source, which reflection may be detected by Doppler range-gating techniques. In other embodiments of the invention, the transmission line is an insulated, twisted wire pair or a deformable transmission line. In some instances, the transmission line may be replaced with an active or passive pressure line. Write: **PAT-APPL-6-297 806**, NTIS.

Fluidic Electronic Intruder Detection System/316

Système fluidique de détection électronique des intrusions/316

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed August 31, 1981, by the Department of the Army. An electronic detection system for detecting intruders employs a transmission line as a sensing element. In one embodiment the transmission line is a modified surface-wave transmission line, for example, a Goubau line, which is positioned about the perimeter of the area to be protected. An intruder in the field of the line causes an RF reflection back toward the source, which reflection may be detected by Doppler range-gating techniques. In other embodiments of the invention, the transmission line is an insulated, twisted wire pair or a deformable transmission line. In some instances, the transmission line may be replaced with an active or passive pressure line. Write: **PAT-APPL-6-297 807**, NTIS.

Planar Doped Barrier Transistor/316

Transistor planar à barrières dopées/316

Filed September 8, 1981, by the Department of the Army. Disclosed is a three terminal epilayer semiconductor structure forming a transistor comprised of two rectifying planar doped barriers separated by an intermediate semiconductor region with the two barriers having respective predetermined barrier height characteristics which are altered upon the application of a bias potential there across and with the intermediate region providing a region for the controlled injection and collection of electrons from one of the barriers whereby majority carriers, i.e. electrons, will surmount and be swept across the other barrier when the peak of the other barrier is below the peak of the first barrier as a result of the applied bias. The device is fabricated by an epitaxial growth process which results in an n+ - i - p+ - i - n structure forming the first or outer barrier, while the other or underlying barrier comprises an n - i - p+ - i -n+ structure with the intermediate region consisting of a portion of the n layer common to both barriers. The composite structure, moreover, utilizes interdigited ohmic contacts for two of the terminals defining the emitter and base contacts of the transistor to minimize the series resistances and capacitances associated with the device. Write: **PAT-APPL-6-300 406**, NTIS.

Power Line Field Discrimination Method for Magnetic Sensors/316

Méthode de discrimination des champs magnétiques des lignes de transmission électriques pour capteurs magnétiques/316

Filed September 18, 1981, by the Department of the Army. The discriminator consists of two major parts; a nonlinear filter for low level rejection, and inhibiting logic for high level rejection, of ac magnetic fields. The nonlinear filter approximately halves the frequency characteristics of a particular class of signals, while at the same time doubling the frequency of normal interfering signals. The inhibiting logic uses the known in-phase relationship to sense and reject even very large time dependent interference. However, spatially variant signals observed from near field relative motion of two orthogonal magnetic sensors with respect to a ferro-magnetic object have a near quadrature relationship that permits signal recognition even when of less amplitude than the interference. Write: **PAT-APPL-6-303 453**, NTIS.

Automated Universal Array/316

Réseau logique universel non affecté/316

Filed September 28, 1981, by the Department of the Army. This abstract discloses a large scale integrated semiconductor array consisting of a layout of predefined uncommitted active circuit components such as transistors which provide for logic function implementation and chip interfacing along with a region of passive circuit components used for signal and power routing. The various components are adapted to be interconnected on a single level which renders it particularly adaptable for automated layout techniques. The array is comprised of a plurality of rows of identical basic internal cells which are symmetrical and separated by an inner roadbed area consisting of at least three, but preferably five, vertical tunnel patterns, each of which is adapted to accommodate three horizontal wiring channels overhead for providing horizontal signal routing. Interconnection and vertical signal routing between cell rows can be made through a feedthrough in each internal cell and connection to selective vertical tunnels without touching the overhead horizontal wiring channels which provide horizontal signal routing. Write: **PAT-APPL-6-305 825**, NTIS.

Real Time Holographic Interferometric Testing of Hybrid Microcircuits/316

Interférométrie holographique en temps réel de microcircuits hybrides/316

Filed October 2, 1981, by the Department of the Army. Apparatus for non-destructive testing of hybrid microcircuits using holographic techniques. The apparatus includes a laser, a beam splitter for splitting the laser beam into two beams. The first beam is reflected through a pinhole aperture to a hologram which is positioned between the microcircuit and a detector (video camera or photomultiplier tube). The second beam is reflected through a pinhole aperture to the object (microcircuit), through a lens, and to the hologram. The circuit is energized and displacements due to thermal changes occur as firing movements in the real time interferogram. A detector monitors these changes. Write: **PAT-APPL-6-307 917**, NTIS.

Dielectric Waveguide Circulator/316

Circulateur à guide d'ondes diélectrique/316

Filed October 13, 1981, by the Department of the Army. Millimeter wave circulators are disclosed for use with millimeter wavelength dielectric waveguides. The structure comprises a prism of magnetized ferrimagnetic material with the waveguide ends bonded to the lateral faces of the prism. The waveguide ends and the lateral faces are congruent rectangles. The prisms may have triangular bases in which case a Y-junction circulator results, or square bases with waveguide ends attached to three out of four of the lateral faces thereof, whereby a T-junction circulator results. Write: **PAT-APPL-6-310 542**, NTIS.

Improved Saw Monolithic Convolver Utilizing Phase-Compensating Dispersive Transducers/316

Dispositif monolithique de convolution à ondes acoustiques de surface amélioré utilisant des transducteurs dispersifs pour la compensation des déphasages/316

Filed October 28, 1981, by the Department of the Army. Disclosed is an improved SAW monolithic convolver using dispersive interdigital transducers designed by a novel technique that allows systematic compensation of phase errors arising in other parts of the convolver. The invention involves a small change in the positional relationship among the electrodes in the input transducers. This change is calculated to be just sufficient to cause a phase error exactly equal to, but of opposite sign to, the aforementioned phase errors. Write: **PAT-APPL-6-315 822**, NTIS.

Three and Four Product Surface-Wave Acousto-Optic Time Integrating Correlators/316

Corrélateurs optico-acoustiques à intégration dans le temps d'ondes de sol à trois et quatre produits/316

Filed November 2, 1981, by the Department of the Army. This abstract discloses a method and device for processing spread-spectrum and other wideband communications and radar signals to obtain three and four product correlated signals. A laser beam is split and shaped into first and second sheet beams. The first beam is directed to a first acousto-optic medium where it is doubly diffracted by first and second signals. The second beam is directed to a second acousto-optic medium which is spatially rotated 90 degs relative to the first acousto-optic medium where the second sheet beam is either singly diffracted by a third signal or doubly diffracted by a third signal and a fourth signal. The diffracted sheet beams are shaped into square beams, combined and directed to a photodiode area array. Write: **PAT-APPL-6-317 687**, NTIS.

Apparatus for Electroplating Particles of Small Dimension/316

Appareil servant à l'électroplacage de particules de faible dimension/316

Filed September 19, 1980, by the Department of Energy. The thickness, uniformity, and surface smoothness requirements for surface coatings of glass microspheres for use as targets for laser fusion research are critical. Because of their minute

size, the microspheres are difficult to manipulate and control in electroplating systems. The electroplating apparatus of the present invention addresses these problems by providing a cathode cell having a cell chamber, a cathode and an anode electrically isolated from each other and connected to an electrical power source. During the plating process, the cathode is controllably vibrated along with solution pulse to maintain the particles in random free motion so as to attain the desired properties. Write: **PAT-APPL-6-188 791**, DOE.

Magnetic Resonance Apparatus/316

Appareil à résonance magnétique/316

Filed October 10, 1980, by the Department of Energy. The patent consists of means for producing a region of homogeneous magnetic field remote from the source of the field, wherein two equal field sources are arranged axially so their fields oppose, producing a region near the plane perpendicular to the axis midway between the sources where the radial correspondent of the field goes through a maximum. Near the maximum, the field is homogeneous over prescribed regions. Write: **PAT-APPL-6-195 968**, DOE.

Three Electrode Low Pressure Discharge Apparatus and Method for Uniform Ionization of Gaseous Media/316

Appareil à triode pour décharge à basse pression et méthode d'ionisation uniforme de milieux gazeux/316

Filed October 17, 1980, by the Department of Energy. Uniform, transverse electrical discharges are produced in gaseous media without the necessity of switching the main discharge voltage with an external device which carries the entire discharge current. A three-electrode low pressure discharge tube is charged across its anode and cathode to below breakdown voltage using a dc voltage source. An array of resistors or capacitors can be made to discharge to the wire screen anode by means of a low energy high voltage pulse circuit producing sufficient preionization in the region between the anode and cathode to initiate and control the main discharge. The invention has been demonstrated to be useful as a CO sub 2 laser oscillator and pulse-smoother. It can be reliably operated in the sealed-off mode. Write: **PAT-APPL-6-198 028**, DOE.

Radiant Energy Receiver Having Improved Coolant Flow Control Means/316

Récepteur d'énergie rayonnée à commande de refroidissement améliorée/316

Filed October 29, 1980, by the Department of Energy. An improved coolant flow control for use in radiant energy receivers of the type having parallel flow paths is disclosed. A coolant performs as a temperature dependent valve means, increasing flow in the warmer flow paths of the receiver, and impeding flow in the cooler paths of the receiver. The coolant has a negative temperature coefficient of viscosity which is high enough such that only an insignificant flow through the receiver is experienced at the minimum operating temperature of the receiver, and such that a maximum flow is experienced at the maximum operating temperature of the receiver. The valving is accomplished by changes in viscosity of the coolant in response to the coolant being heated and cooled. No remotely operated valves, comparators or the like are needed. Write: **PAT-APPL-6-201 958**, DOE.

Imaging Alpha Particle Detector/316

Imageur de particules alpha/316

Filed October 29, 1980, by the Department of Energy. A method and apparatus for detecting and imaging alpha particles sources is described. A dielectric coated high voltage electrode and a tungsten wire grid constitute a diode configuration discharge generator for electrons dislodged from atoms or molecules located in between these electrodes when struck by alpha particles from a source to be quantitatively or qualitatively analyzed. A thin polyester film window allows the alpha particles to pass into the gas enclosure and the combination of the glass electrode, grid and window is light transparent such that the details of the source which is imaged with high resolution and sensivity by the sparks produced can be observed visually as well. The source can be viewed directly, electronically counted or integrated over time using photographic methods. A significant increase in sensitivity over other alpha particle detectors is observed, and the device has very low sensitivity to gamma or beta emissions which might otherwise appear as noise on the alpha particle signal. Write: **PAT-APPL-6-202 042**, DOE.

Four Input Coincidence Detector/316

Détecteur par coincidence à quatre entrées/316

Filed January 6, 1981, by the Department of Health and Human Services. This invention relates generally to the measurement of nuclear radiation using scintillation counters, and, more particularly, to positron imaging systems in which two gamma rays resulting from the annihilation of a positron can be identified by the fact that they are detected almost simultaneously. Write: **PAT-APPL-6-222 936**, NTIS.

Jet Controlled Catheter/316

Sonde à jet contrôlé/316

Filed May 12, 1981, by the Department of Health and Human Services. The present invention relates generally to catheters and, more particularly, to controlling the movement of the catheters in acutely branching vessels without the need for stiff and abrasive guide wires or other cumbersome mechanical means. Write: **PAT-APPL-6-262 806**, NTIS.

Preparation of Chiral 1-Benzyl-1,2,3,4-Tetrahydroisoquinolines by Optical Resolution/316

Préparation de 1-benzyl-1,2,3,4-tétrahydroisoquinolines chirales par dédoublement/316

Filed May 20, 1981, by the Department of Health and Human Services. In a short total synthesis of morphinan compounds, derivatives of 1-benzyl-1,2,3,4-tetrahydroisoquinoline are produced. Certain of these compounds, although highly aromatic and functionalized, can be optically resolved. The optically active enantiomers can serve as important intermediates for both natural and unnatural opioids. Write: **PAT-APPL-6-265 469**, NTIS.

6-Keto-Morphinan Analgesics/316

Analgésique à base de 6-cétomorphinane/316

Filed July 16, 1981, by the Department of Health and Human Services. This patent application describes the preparation and properties of novel and highly potent morphinan analgesics. The compounds include narcotic agonists as well as narcotic an tagonists. Write: **PAT-APPL-6-284 088**, NTIS.

Highly Potent 6-Keto-Morphinans Belonging to the 14-Hydroxy-Series and Preparation/316

Structure et préparation de 6-cétomorphinanes très puissants appartenant à la série 14-hydroxy/316

Filed July 16, 1981, by the Department of Health and Human Services. 6-Keto-14-hydroxymorphinans having at the 4 position a substituent which is R1 = H, O lower alkyl, or O lower acyl, and N may be substituted by R2, which for agonist properties may be lower alkyl, tower alkenyl, cyclopropylmethyl, or pheny lower alkyl, etc. Additionally, the nitrogen may be substituted by R2, which is allyl, cyclopropylmethyl, cyclobutylmethyl, dimethylallyl, etc., which function as antagonists to the morphine-like activity of the compound. Such activity is known as antinociceptive. Write: **PAT-APPL-6-284 089**, NTIS.

Motorized Wheel Chair/316

Fauteuil roulant motorisé/316

Filed July 29, 1981, by the Department of Health and Human Services. This patent invention application relates to motorized wheel chairs, and more particularly to a motorized wheel chair having manually operated transducers to control the drive motors of the chair in accordance with the speed of actuation of the transducers. Write: **PAT-APPL-6-288 197**, NTIS.

High Stability Buffered Phase Comparator/316

Comparateur de phase à circuits tampons très stables/316

Filed July 17, 1981, by NASA. A low noise RF signal phase comparator comprised of two high stability driver buffer amplifiers driving a double balanced mixer which operate to generate a beat frequency between the two RF input signals coupled to the amplifiers from the RF sources is described. The beat frequency output from the mixer is applied to a low noise zero crossing detector which is the phase difference between the two RF inputs. Temperature stability is provided by mounting the amplifiers and mixer on a common circuit board with the active circuit elements located on one side of a circuit board and the passive circuit elements located on the opposite side. A common heat sink is located adjacent the circuit board. The active circuit elements are embedded into the bores of the heat sink which slows the effect of ambient temperature changes and reduces the temperature gradients between the active circuit elements, thus improving the cancellation of temperature effects. The two amplifiers include individual voltage regulators, which increases RF isolation. Write: **PAT-APPL-6-284 314**, 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, U.S.A.

Low X-Ray Absorption Aneurism Clips/316

Pinces d'absorption des rayons-X mous pour anévrysmes/316

Filed May 15, 1981, by NASA. An X-ray transparent and biological inert medical clip for treating aneurisms and the like is described. A graphite reinforced composite film is molded into a unitary structure having a pair of 'hourglass' like cavities hinged together with a pair of jaws for grasping the aneurism extending from the wall of one cavity. A silicone rubber pellet is disposed in the other cavity to exert a spring force through the hinge area to normally bias the jaws into contact with

each other. Write: **PAT-APPL-6-264 381**, 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, U.S.A.

Ride Quality Meter/316

Appareil de mesure des caractéristiques de roulement des véhicules/316

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed May 22, 1981, by NASA. The invention automatically transforms vibration and noise measurements into a single number index of passenger discomfort. The noise measurements are converted into a noise discomfort value. The vibrations are converted into single axis discomfort values which are then converted into a combined axis discomfort value. The combined axis discomfort value is corrected for time duration and then summed with the noise discomfort value to obtain a total discomfort value. Write: **PAT-APPL-6-267 179**, 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, U.S.A.

A Rectangular Rod-Wall Sound Shield/316

Tronçon rectangulaire à parois tubulaires pour la réduction du bruit/316

Filed May 28, 1981, by NASA. A test section for a supersonic or hypersonic wind tunnel is described. The section is shielded from the noise normally radiated by the turbulent tunnel wall boundary layer. A vacuum plenum surrounds spaced rod elements making up the test chamber. Some of the boundary layer formed along the rod elements during a test is thereby extracted to delay the tendency of the rod boundary layers to become turbulent. Novel rod construction involves bending. Each rod is bent prior to machining, providing a flat segment on each rod for connection with the flat entrance fairing. Rods and fairing are secured to provide a test chamber incline on the order of 1 deg outward from the noise shield centerline to produce up to a 65% reduction of the root-mean-square (rms) pressure over previously employed wind tunnel test sections at equivalent Reynolds numbers. Write: **PAT-APPL-6-267 935**, 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, U.S.A.

Universal Connectors for Joining Stringers/316

Dispositifs universels de raccordement des longerons/316

Filed June 5, 1981, by NASA. A lightweight, universal connector that joins stringers at various angles is discussed. The connectors are fabricated from fiber epoxy resin strips that wrap around stringers and have ends, tabs and extend in one general direction. The inside surface of the first tab lies on a plane defined by the joined stringers, and the second tab is separated from the first tab by a distance equal to their thickness. Stringers of different shapes and sizes are joined by alternately bonding the first tab of one connector between the first and second tabs of another connector. Tee joints are formed by web elements which partially wrap around a stringer and have tabs which are offset and bonded between tabs of universal connectors are bonded to another stringer. Sharp corners are trimmed from the tabs and a gusset area remains between the stringers for support. Acute angle through obtuse angle joints are formed by trimming those edges of the tabs which lie against the stringers. Write: **PAT-APPL-6-270 762**, 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, U.S.A.

Aeroelastic Instability Stoppers for Wind-Tunnel Models/316

Stabiliseurs de modèles dans les souffleries/316

Filed June 17, 1981, by NASA. A mechanism for constraining models or sections thereof, was wind tunnel tested, deployed at the onset of aeroelastic instability, to forestall destructive vibrations in the model is described. The mechanism includes a pair of arms pivoted to the tunnel wall and straddling the model. Rollers on the ends of the arms contact the model, and are pulled together against the model by a spring stretched between the arms. An actuator mechanism swings the arms into place and back as desired. Write: **PAT-APPL-6-274 705**, 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, U.S.A.

Aeroelastic Instability Stoppers for Wind-Tunnel Models/316

Stabiliseurs de modèles dans les souffleries/316

Filed June 17, 1981, by NASA. A mechanism for diverting the flow in a wind tunnel from the wing of a tested model is described. The wing is mounted on the wall of a tunnel. A diverter plate is pivotally mounted on the tunnel wall ahead of the model. An actuator fixed to the tunnel is pivotably connected to the diverter plate, by plunger. When the model is about

to become unstable during the test the actuator moves the diverter plate from the tunnel wall to divert flow about the wing and change the effective sweep angle thereof maintaining stable model conditions. The diverter plate is then retracted to enable normal flow. Write: **PAT-APPL-6-274 706**, 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, U.S.A.

An Instrument for Determining Coincidence and Elapse Time Between Independent Sources of Random Sequential Events/316

Détecteur de coincidence et mesureur d'intervalle entre des événements consécutifs aléatoires provenant de sources indépendantes/316

Filed July 10, 1981, by NASA. An instrument for use in laser velocimetry is described. The instrument receives pulses from a primary external source and one or more secondary external sources and determines when there is coincidence between the primary and one of the secondary sources. The instrument generates a finite time window (coincidence aperture) during which coincidence is defined to have occurred. The time intervals between coincidence apertures in which coincidences occur are measured. Write: **PAT-APPL-6-282 191**, 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, U.S.A.

Unequal Split Microwave Power Divider/316

Diviseur de puissance micro-ondes non symétrique/316

Filed July 30, 1981, by NASA. An unequal split in-phase microwave power divider is described. A power signal is applied to a power divider that produces two signals that are equal and out of phase. These two signals are applied to a quadrature hybrid that produces two signals at the output terminals and that are unequal and in-phase. Write: **PAT-APPL-6-288 434**, 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, U.S.A.

Densification of Porous Refractory Substrates/316

Densification de substrats poreux réfractaires/316

Filed May 22, 1981, by NASA. A hydrolyzed tetraethyl orthosilicate is applied to the surface of a porous refractory substrate following which the substrate is heated to a temperature and for a period of time sufficient to bond the silica released from the tetraethyl orthosilicate to the substrate thereby densifying and strengthening the surface. Write: **PAT-APPL-6-266 256**, 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.

Apparatus and Method for Heating a Material in a Transparent Ampoule/316

Appareil et méthode de chauffage d'une substance dans une ampoule transparente/316

Filed June 30, 1981, by NASA. A material within a fused silica ampoule is heated by radiation through the wall of the ampoule, while a cooling gas is simultaneously passed around the ampoule. The radiation is passed through a screen of fused silica so as to remove those components capable of directly heating the silica. This increases the temperature of the material within the ampoule above the strain point of the ampoule, and maintains the exterior of the ampoule cool enough to prevent rupturing the ampoule. Write: **PAT-APPL-6-280 151**, 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.

Adaptive Reference Voltage Generator for Firing Angle Control of Line-Commutated Inverters/316

Générateur adaptatif de tension de référence pour la commande de l'angle de déclenchement d'inverseurs autonomes/316

Filed August 7, 1981, by NASA. A control system for a permanent-magnet motor driven by a multiphase line-commulated inverter is described. It is provided with integrators for integrating the back EMF of each phase of the motor for use in generating system control signals for an inverter gate logic using a sync and firing angle control generator connected to the outputs of the integrators. The firing angle control signals are produced by the control generator by means for combining 120 deg segments of the integrated back EMF signals symmetrical about their maxima into composite positive and negative waveforms, and means for sampling the maxima of each waveform every 120 deg. These samples are then used as positive and negative firing angle control signals, whereby any change in amplitude of the integrated back EMF signals will not affect a change in the operating power factor of the motor and inverter. Write: **PAT-APPL-6-291 131**, 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.

Adaptive Control System for Line-Commutated Inverters/316

Système de commande adaptatif pour inverseurs autonomes/316

Filed August 7, 1981, by NASA. A control system for a permanent-magnet motor driven by a multiphase line-commutated inverter is described. It is provided with integrators for integrating the back EMF of each phase of the motor for use in generating system control signals for an inverter gate logic using a sync and firing angle control generator connected to the outputs of the integrators. A precision full-wave rectifier provides a speed control feedback signal to a phase-delay rectifier via a gain and loop compensation circuit and to the integrators for adaptive control of the attenuation of low frequencies by the integrators as a function of motor speed. As the motor speed increases, the attenuation of low frequency components by the integrators is increased to offset the gain of the integrators to spurious low frequencies. While the attenuation may be a continuous linear function of speed, a switch is employed to provide a step change in attenuation at 40% of speed. Write: **PAT-APPL-6-291 132**, 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.

Method of Carbonizing Polyacrylonitrile Fibers and Resulting Product/316

Méthode pour carboniser des fibres de polyacrylonitrile et produit résultant/316

Filed July 10, 1981, by NASA. A method of carbonizing polyacrylonitrile fibers (PAN fibers) is described. The fibers are exposed at an elevated temperature to an oxidizing atmosphere, then to an atmosphere of an inert gas such as nitrogen containing a carbonaceous material such as acetylene. The fibers are preferably treated with an organic compound, for example benzoic acid, before the exposure to an oxidizing atmosphere. Write: **PAT-APPL-6-282 129**, NASA, Ames Research Center, Mail Code: 200-11A, Moffett Field, California 94035 and send a copy of your initial correspondence to Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111-3468, U.S.A.

Dual-Beam Skin Friction Interferometer/316

Interféromètre de mesure du frottement superficiel par dédoublement du faisceau laser/316

Filed July 10, 1981, by NASA. A portable dual-laser-beam interferometer is described that nonintrusively measures skin friction by monitoring the thickness change of an oil film at two locations while said oil film is subjected to shear stress. An interferometer flat is utilized to develop the two beams. Light detectors sense the beam reflections from the oil film and the surface thereunder. The signals from the detectors are recorded so that the number of interference fringes produced over a given time span may be counted. Write: **PAT-APPL-6-282 192**, NASA, Ames Research Center, Mail Code: 200-11A, Moffett Field, California 94035 and send a copy of your initial correspondence to Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111-3468, U.S.A.

Phosphorus-Containing Imide Resins/316

Résines imidiques phosphorées/316

Filed July 30, 1981, by NASA. Bis- and tris-imides derived from tris (m-aminophenyl) phosphine oxides by reaction with maleic anhydride or its derivatives, and addition polymers of such imides, including a variant in which a mono-imide is condensed with a dianhydride and the product is treated with a further quantity of maleic anhydride. Such monomers or their oligomers may be used to impregnate fibers and fabrics which when cured, are flame resistant. Also an improved method of producing tris (m-aminophenyl) phosphine oxides from the nitro-analogues by reduction with hydrazine hydrate using palladized charcoal or Raney nickel as the catalyst is described. Write: **PAT-APPL-6-288 267**, NASA, Ames Research Center, Mail Code: 200-11A, Moffett Field, California 94035 and send a copy of your initial correspondence to Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111-3468, U.S.A.

Resin Composition, Process for Producing the Same, Product Produced Therefrom and Process for Producing Said Product/316

Composition résinique, et produit dérivé, et leurs procédés de fabrication/316

Filed July 30, 1981, by NASA. Flame and temperature resistant fiber reinforced panels are prepared by thermally curing, optionally in the presence of a thermal cure accelerating catalyst, a composition comprising a blend of diglycidyl ether or bis-(4-hydroxyhenyl)-fluorene, a novel compound, and diglycidyl ether or bisphenol A. Suitable catalysts are trimethoxyboroxine and ethyl triphenyl phosphonium iodide. The resin blend composition is simply thermally cured at temperatures of 149 C to 216 C, optionally in the presence of the catalyst which accelerates thermal curing, to produce a resin molding. The resin blend composition can also be used to impregnate reinforcing fibers such as glass cloth and graphite cloth to produce prepregs, and laminates of assemblies of these prepregs can be then cured under heat and pressure to produce reinforced composites suitable as panels in buildings, aircraft and ships. Write: **PAT-APPL-6-288 279**, NASA, Ames Research Center, Mail Code: 200-11A, Moffett Field, California 94035 and send a copy of your initial correspondence to Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111-3468, U.S.A.

Electronic Component Cooling/316

Refroidissement des composants électroniques/316

Filed August 4, 1980, by the Department of the Navy. Cooling of electronic components on a circuit board is accomplished by a thermally conductive element such as a heat pipe that is in spaced parallel relation to the board and in contact with the upper surfaces of the components. The ends of the conductive element are forced into contact with a heat receiving and dissipating frame by a clamp device acting through the board and a lightweight spacer between the board and the conductive element. Write: **PAT-APPL-6-175 118**, NAVY.

Adaptive Correlator/316

Corrélateur polyvalent/316

Filed October 6, 1981, by the Department of the Navy. A correlator which is capable of correlating two or more signals of unknown frequency and bandwidth receives inputs on each of two or more channels. For the case of a two-channel, or pairwise correlator the two channels are designated a first channel and a second channel. For the pairwise correlator, a first adaptive linear predictive (ALP) filter filters the input signal from the first channel and a second (ALP) filter filters the input signal from the second channel, the two output signals of the filters being x(k) and y(k). The adaptive linear predictive filter is an adaptive time-domain digital filter which adapts its impulse response according to a certain algorithm. The filter output represents an adaptive linear predictive estimate of the current input value, based on many past inputs. The input signals to the two channels of the pairwise correlator may correspond to sensor outputs from two or more widely separated sensors. The two output signals x(k) and y(k), are correlated in a pairwise correlator to result in a signal which corresponds to an estimate of the magnitude-squared coherence between the signal x(k) and a time-delayed, frequency-shifted, version of the signal y(k). Write: **PAT-APPL-6-194 168**, NAVY.

Spherical Segment Insertion Apparatus/316

Dispositif d'insertion des segments sphériques/316

Filed January 2, 1981, by the Department of the Navy. Apparatus is provided for enabling selected structure to be joined to a spherical segment, such as a segment employed as a lens, viewing port or radiation transmissive housing. The apparatus includes a structure support component which is insertable into an aperture through the segment, the aperture being circumscribed by a frustoconical bearing surface, and the support component being provided with a frustoconical seating surface which matches the bearing surface of the aperture. A retaining component positioned inside the spherical segment is provided to selectively secure the support component within the aperture, so that the frustoconical bearing and seating surfaces are maintained in abutting relationship. Several components of a complaint nature are selectively positioned between the support means and various portions of the spherical segment, proximate to the aperture, to seal the spherical segment from external pressure, which may become substantial. Write: **PAT-APPL-6-222 114**, NAVY.

Insulated Fiber Brush/316

Balai en fibres isolées/316

Filed April 17, 1981, by the Department of the Navy. An insulated-strand fiber brush is provided for a DC motor/generator. The brush is comprised of a plurality of fiber segments which are insulated from one another near the contact surface of a rotor bar. In one embodiment, insulating spacers are fixed to a brush assembly and wear with the fibers, and in another embodiment insulation is provided by a separate shell. Write: **PAT-APPL-6-225 182**, NAVY.

Height Adjustable Cargo Container Locking Mechanism/316

Dispositif de calage à tige filetée/316

Filed January 19, 1981, by the Department of the Navy. The patent application describes an apparatus for securing a cargo container having standard corner fittings includes a housing in which is mounted an elevator assembly for vertically positioning a platform with respect to the housing. The platform is adapted to engage a corner fitting when raised. The apparatus further includes a rotatable locking element carried on the platform which is rotated to lock to the fitting once the fitting is engaged. The platform together with the locking element can be further elevated when the fitting is engaged to raise a corner of the container or retracted within the housing to disengage and allow the container corner to clear the top of the housing. Write: **PAT-APPL-6-225 883**, NAVY.

Rotating Electric Machine Having a Toroidal Wound Motor Winding/316

Machine électrique rotative comportant un enroulement torique/316

Filed February 17, 1981, by the Departmental of the Navy. A rotor rotating electric machine having a toroidal winding assembly wound in a toroidal helix configuration. The toroidal winding includes four coils, each of which is wound in the form of a toroidal helix around a thin cylindrical ring. A rotor, coaxially rotatable within the toroidal winding, includes a magnetic assembly which has alternately a plurality of north pole permanent magnets and a plurality of south pole permanent magnets. Excitation of the toroidal winding assembly will, in turn, cause the rotor to rotate in a predetermined direction. Write: **PAT-APPL-6-235 287**, NAVY.

Emergency Lighting Unit/316

Dispositif d'éclairage d'urgence/316

Filed March 23, 1981, by the Department of the Navy. An emergency lighting unit having a electroluminescent lamp is provided for use in locating an aircraft exit. The emergency lighting unit contains a battery and an inverter for converting DC battery current to high frequency alternating current required for illumination of the electroluminescent lamp. Various means are provided for automatically lighting the lamp during a distress situation. The lighting unit is configured to serve as a handle for use in leaving a disabled aircraft. Write: **PAT-APPL-6-246 781**, NAVY.

A Method for Deployment of a Towed Array from a Swath Ship/316

Méthode de déploiement des structures remorquées par un navire à coque submergée multiple/316

Filed April 30, 1981, by the Department of the Navy. A method for deploying towed instrument arrays from vessels having multiple submerged hulls is disclosed. The method significantly reduces the possibility of the array abrading or fouling upon any submerged structure or part of the vessel. Write: **PAT-APPL-6-258 988**, NAVY.

Optical Transmitter/Receiver Apparatus Sharing Common Optics/316

Appareil émetteur-récepteur optique comportant un système optique commun/316

Filed May 7, 1981, by the Department of the Navy. Optical detection apparatus is provided which includes a coherent light source for generating a beam of coherent light. The apparatus further includes a unitized or discrete optical component which receives the generated beam, and projects light thereof which has a particular polarization characteristic into a specified environment. The optical component also functions to receive or absorb light from the environment which has the particular polarization characteristic, and to directably reflect light from the environment which does not have the polarization characteristic. A lens or other light collecting device focuses light reflected by the discrete optical component upon a light detection element. A light conducting path is provided between the coherent light source and the light detecting element to enable generated coherent light to be mixed with the reflected light upon the light detecting element to provide data signals which indicate the presence of an object in the environment. Write: **PAT-APPL-6-261 341**, NAVY.

Composite Superconductors/316

Supraconducteurs composites/316

Filed May 14, 1981, by the Department of the Navy. It is an object of the present invention to improve the ductility of the filament alloy of a composite superconductor and therefore enhance the metallurgical processing of the composite superconductor. Another object of the present invention is to refine the grain size of the intermetallic A-15 compound. A further object of this invention is to improve the reliability and efficiency of the metallurgical processing of composite superconductors. These and other objects are achieved by the incorporation of a metal selected from the class consisting of yttrium, tellurium, lanthanum, cerium, gadolinium, erbium, and mixtures thereof into the filament alloy selected from the class consisting of Cu-Ga, Cu-Ga-A1, Cu-Sn, and Cu-Si in an amount sufficient to substantially getter interstitial impurities and to impart in the inner alloy an amount of the metal to refine the grains of the A-15 compound. Write: **PAT-APPL-6-263 664**, NAVY.

Lens System for Panoramic Imagery/316

Système de lentilles pour prise de vue et projection panoramiques/316

Filed June 21, 1981, by the Department of the Navy. This invention, in general, relates to the field of optical image transfer. In particular, this invention relates to a wide angle image transfer system capable of transforming images up to 360 deg in conjunction with the taking and projection of pictures. The subject invention overcomes some of the disadvantages of the prior art, including those mentioned above, in that it comprises a lens system for panoramic imagery which is capable of transforming visual images up to 360 deg in conjunction with the taking and the projection of pictures of the aforementioned visual images. Write: **PAT-APPL-6-265 874**, NAVY.

Pseudo-Random Noise Generated Target Simulator/316

Simulateur de cible à générateurs de bruit pseudo-aléatoire/316

Filed May 26, 1981, by the Department of the Navy. The pseudo-random noise generated target simulator (PRNGTS) replaces the large memories and long delay lines with a plurality of pseudo-random noise generators that are programmed to have a noise sequence with a period much longer than the arrays and fire travel time requirements. When required, the PRNGTS wave fronts are easily manipulated to present a moving target by employing a random access memory (RAM) for the single synchronizing binary number PROM. Write: **PAT-APPL-6-266 852**, NAVY.

Airspeed Display Scale with Integral Trend Indication/316

Dispositif intégré d'affichage et d'extrapolation de la vitesse/316

Filed June 11, 1981, by the Department of the Navy. A principal object of the present invention is to produce a continuous display of the airspeed of a landing aircraft in an improved manner. Another object of the present invention is to indicate the trend of the airspeed of a landing aircraft as either increasing or decreasing in an improved manner. Yet another object of the present invention is to provide display information which is visible over a wide range of ambient deck lighting conditions from night to sunlight daytime landings in an improved manner. Write: **PAT-APPL-6-272 624**, NAVY.

Internal Clamp/316

Dispositif de calage à tige filetée/316

Filed August 3, 1981, by the Department of the Navy. The patent application describes a clamp for pressing workpieces against the inner surface of an aperture includes fore and aft guides which may be adjusted in separation by axial movement of a threaded, central shaft. Movement of said fore and aft guides causes radial movement of radially extending workpiece holders by means of linkages attached between said workpiece holders and said guides. Write: **PAT-APPL-6-289 445**, NAVY.

Channelized Feed-Forward System/316

Système à correction aval comportant plusieurs bandes de fréquences/316

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed August 7, 1981, by the Department of the Navy. A feed-forward system for reducing the distortion products from a device such as an amplifier, wherein samples of the distortion products from the output of the device in one or more frequency bands whose bandwidths are less than that of the device are extracted, adjusted in amplitude and phase and subtractively combined with the device output to produce a system output in which distortion in the frequency bands is reduced. Write: **PAT-APPL-6-290 760**, NAVY.

Millimeter Wave Dielectric Waveguide Rotary Joint/316

Joint rotatif de guide d'ondes diélectrique fonctionnant en ondes millimétriques/316

Filed August 14, 1981, by the Department of the Navy. A dielectric surface waveguide is used as a connecting medium in a rotary joint transmitting waveguide energy in the 3mm region. The dielectric is fastened within a ball bearing race to provide relative motion between the gimballed and stationary waveguide structure. Launch horns are used to enhance transmission through said dielectric waveguide. Write: **PAT-APPL-6-292 777**, NAVY.

A Sensitive Fiber Optic Sensor/316

Détecteur sensible à fibre optique/316

Price per copy from NTIS: PC U.S. $7.50/MF U.S. $4.00, filed August 28, 1981, by the Department of the Navy. A sensor is provided for sensing or detecting the presence of an environmental field conditions such as acceleration, temperature change, magnetic or acoustic fields. The field is sensed by interference between two mutually orthogonal Polarized eigenmodes in a single monomode optical fiber which may be disposed either linearly or wound on a mandrel made of compliant material for sensing an acoustic field, or made of magnetostrictive material for sensing a magnetic field. Polarized light propagated through the optical fiber is detected at its outlet independent of environmentally induced low frequency variations whereby the sensor may be maintained at quadrature and maximum sensitivity. Write: **PAT-APPL-6-293 589**, NAVY.

A Shallow Water Environmental/Oceanographic Measurement System/316

Système de mesures environnementales et océanographiques en eau peu profonde/316

Filed August 31, 1981, by the Department of the Navy. The present invention provides a shallow water environmental/oceanographic measurement system for real time monitoring of specific parameters at a particular location. A three point moored buoy is anchored over the particular location. Bottom mounted sensors to measure the specific parameters are situated generally within the area of the three point mooring area. Sensor data is transmitted via cable to the buoy from whence it is telemetered to a shore station. Therefore, it is an object of the present invention to provide a shallow water environmental/oceanographic measuring system which gives a real time display of specific parameters at a particular location to a remote site. Another object of the present invention is to provide a shallow water environmental/oceanoggraphic measurement system the sensors of which are protected from being snagged in trawl nets. Write: **PAT-APPL-6-298 053**, NAVY.

Monopole Inductively Loaded Antenna Tuning System/316

Système d'accord d'antenne unipolaire à charge inductive/316

Filed September 14, 1981, by the Department of the Navy. A monopole inductively loaded antenna system is disclosed in which the antenna system is tuned to resonance and impedance matched without making changes to the loading inductance or other antenna elements. The monopole inductively loaded antenna is supported by a base insulator having an antenna side and ground plane side, a variable capacitor is positioned on the ground plane side of the base feed insulator for tuning the antenna system to resonance. One of a plurality of impedance matching transformers is selectively switched into the antenna system to match the antenna load to the transmitter. Write: **PAT-APPL-6-301 909**, NAVY.

A Machining Process for Metal Mirror Surfaces/316

Méthode de polissage des miroirs métalliques/316

Filed September 18, 1981, by the Department of the Navy. This invention pertains to a method for producing high quality metal mirror surfaces. In particular, this method pertains to hardened metal surfaces suitable for high energy laser mirrors. Hardened metal surfaces from materials such as copper, silver, gold, aluminum and alloys of these metals can be made by two distinctly different precision diamond machining processes. In the first method, an optically machined surface is prepared initially using customary tool top rake angles in the + 5 to -5 deg. range. This surface is then cold worked using a very large negative rake angle in the range of -30 deg. Upon completion of the machining at this very large negative rake angle, the surface is remachined using a less negative rake angle in the range of -5 to +5 deg. Alternately, the surface can be produced in one step, using an intermediate negative rake angle, -15 deg to -20 deg which produces a large degree of cold work, but also prepares a very high quality optically finished surface at the same time. An object of the present invention is to produce optically finished, hardened metal surfaces which have spatial uniformity in the degree of hardening and surface finish, and are thus suitable for high energy laser mirrors in that the damage threshold is uniformly high. Write: **PAT-APPL-6-303 450**, NAVY.

Pattern Generating Circuit/316

Circuit générateur de mire/316

Filed September 24, 1981, by the Department of the Navy. A pattern generating circuit is disclosed for providing a fixed test pattern to be broadcast on a video display system such that an individual may test or repair the aforementioned video display system. The pattern generating circuit provides a horizontal sync signal, a vertical sync signal, and first and second video component signals which are then summed by a summing amplifier to form a video signal. The horizontal and vertical sync signals are then supplied to the video display system so as to activate the same. This, in turn, allows the video display system, upon receiving the video signal, to broadcast on its display screen the fixed test pattern. Write: **PAT-APPL-6-305 075**, NAVY.

Licences from Japan

Know-how licensing rights are offered by four Japanese companies. Interested manufacturers may obtain additional information or initiate negotiations by contacting (quoting title and reference number) International Department, The Foundation of Osaka Science and Technology Center, 1-8-4, Utsubo Hommachi, Nishi-ku, Osaka, Japan. Please send a copy of your initial correspondence to the Commercial Division, Canadian Embassy, 3-38 Akasaka 6-Chome, Minato-ku, Tokyo 107, Japan.

Plastic Tube Heating Elements/316

The heating element is a special plastic compound to create electric resistance. The element emits heat with the current due to resistance. As temperature goes up, the element expands and resistance gets bigger to make higher heat. As resistance gets bigger, the less electric current flows (this results in energy-saving). Expansion of the element, however, is limited by the outer plastic tube when temperature reaches to some level. This way the element controls temperature automatically by itself. The new heating elements are ready for immediate use as sheathed heaters as they are, and can be cut easily with scissors to one's required lengths. The base heating mat is made easily by welding the elements to the wire to run the electric current and sealing the hems with the hem sealing machine. Costs of the new elements are much lower than any other heating elements. Maximum temperature the elements emit is 90 degree C. The shorter the length of element is, the higher temperature of heat they generate. Heating temperature according to length of elements is adjusted by diameters of elements. The elements to emit heat with dry celle batteries can also be made. Electric consumption of the heating elements is about one-fourth of the other heating elements. The heating temperature never goes up dangerously high due to automatic temperature control. Electric shock is not received from the broken tube of the new elements. The new elements are not suitable for extremely high heating use like boiling water. Application: As this element heats at moderate temperature (40°C - 80°C), it is applicable for floor heating, wall heating, preventing freezing, as bed warmers, in forcing vegetables, seedling, etc. Patent or know-how licensing is offered. The elements will be supplied by Kyowa Shokai Co., Ltd. Reference Number PA1-1 (15-13).

Produits nouveaux du Japon

Quatre compagnies japonaises offrent les droits d'exploitation sous licence de nouveaux produits et de nouveaux procédés. Les fabricants intéressés peuvent obtenir de plus amples renseignements en écrivant à l'adresse suivante (en citant le titre et le numéro de référence): International Department, The Foundation of Osaka Science and Technology Center, 1-8-4, Utsubo Hommachi, Nishi-ku, Osaka (Japon). Prière d'envoyer une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 3-38 Akasaka 7-Chome, Minato-ku, Tokyo 107 (Japon).

Éléments chauffants sous gaine de plastique/316

L'élément chauffant est fait d'un composé spécial en plastique qui, à cause de sa résistance électrique, produit de la chaleur lorsqu'un courant le traverse. À mesure que la température augmente, l'élément se dilate et la résistance s'accroît, ce qui augmente la chaleur produite. Plus la résistance s'accroît, plus l'intensité du courant s'affaiblit, ce qui permet des économies d'énergie. Toutefois, au-delà d'un certain seuil de température l'expansion de l'élément est limitée par le tube extérieur en plastique. L'élément assure donc lui-même la commande de sa température. Ces nouveaux éléments chauffants sous gaine peuvent être utilisés immédiatement, tels quels ou après qu'on les a coupés à la longueur appropriée, ce qui s'effectue facilement au moyen de ciseaux. On réalise aisément une nappe chauffante de base en soudant les éléments au fil électrique et en scellant les rebords au moyen de la machine de scellage. Les coûts de ces nouveaux éléments sont bien inférieurs à ceux de tout autre élément chauffant. La température maximale produite par les éléments est de 90°C. Plus un élément est court, plus la température produite est élevée. Pour des éléments de même longueur, la température dépend du diamètre de l'élément. Il est aussi possible de fabriquer des éléments qui produisent de la chaleur à partir de batteries de piles sèches. La consommation électrique de ces éléments équivaut environ au quart de celle des autres types d'élément chauffant. La température n'atteint jamais des niveaux dangereux, grâce à la commande automatique de température. Il n'y a aucun danger de chocs électriques si le revêtement d'un élément est brisé. Les éléments ne sont pas conçus en vue d'applications à très haute température comme, par exemple, pour faire bouillir de l'eau. Applications: puisqu'il produit des températures modérées (40°C à 80°C), cet élément peut servir pour la fabrication de chauffe-lits ou au chauffage des planchers ou des murs, à la prévention du gel, à la culture forcée de légumes, à la culture de jeunes plants, etc. Cette invention est offerte sous la forme d'un brevet ou d'une licence de savoir-faire. La fourniture des éléments sera assurée par la société Kyowa Shokai Co., Ltd., numéro de référence: PA1-1 (15-13).

Cerabon Foam/316

Developed by Shikoku Kaken Kogyo Co., Ltd., this is an inorganic foam made of a ceramic type raw material used at ambient temperature and sprayed on the inside walls of a building where it effects heat insulation and sound proofing and also prevents condensation. Foam Cerabon M-520 is non-combustible, non-smoking and fireproof, safe in high heat caused by a fire. It does not add weight to the structure on which it is applied as it is 0.3 of bulk density; it has retaining properties and does not degrade from the effect of ultra violet rays nor, unlike plastic type insulation materials, shrink with age. Two components are mixed on site, sprayed onto the surface where it foams or expands two to three times in bulk and sets immediately forming a seamless finish. It replaces moldings by coating reentrant angles and other parts. This does not require a special machine. The use of FCR primer affords long-term adhesive performance to the foam. Delicate undulated patterns can be formed on the surface by a spray coating method. Patent and know-how licensing rights are offered. Reference Number SH2-3 (2-8)

Mousse Cerabon/316

Mise au point par la compagnie Shikoku Kaken Kogyo Co., Ltd., et fabriquée à partir d'une substance de type céramique, cette mousse inorganique est pulvérisée sur les murs intérieurs des bâtiments, à la température ambiante, où elle sert d'isolant thermique et phonique et prévient la condensation. La mousse Cerabon M-520 est incombustible, n'émet pas de fumée, résiste au feu et n'entraîne aucun danger à des températures élevées causées par un incendie. Elle s'alourdit pas la structure où on l'applique car sa masse volumique n'est que de 0,3; elle est stable, ne se dégrade pas sous l'action des rayons ultra-violets et ne rétrécit pas avec le temps, comme les matériaux isolants de type plastique. Deux composants sont mélangés sur place et pulvérisés sur la surface où la mousse se forme puis double ou triple de volume avant de prendre rapidement, en laissant un fini uniforme. La mousse remplace les moulures en couvrant les angles rentrants et autres parties. Son application ne nécessite pas d'appareil spécial. L'apprêt FCR confère une adhérence à long terme. On peut créer une surface finement ondulée en employant une méthode de pulvérisation spéciale. On offre le brevet et les droits d'exploitation sous licence. Numéro de référence SH2-3(2-8).

Foam Cerabon Fireproofing/316

A technique developed by Shikoku Kaken Kogyo Co., Ltd. in which an application of foam Cerabon of inorganic foaming material at ambient temperature is sprayed on the back of folded plate made of galvanized steel. The folded plate has excellent heat insulating properties as compared with conventional materials. This construction method is authorized as Fireproofing Protection Method No. R-0076 by the Ministry of Construction of Japan. This fireproof layer is obtained by coating only once. Reference Number SH2-5(2-10).

Ignifugation par mousse Cerabon/316

Il s'agit d'une technique mise au point par la compagnie Shikoku Kaken Kogyo Co., Ltd. qui consiste à pulvériser la mousse Cerabon, substance moussante inorganique, sur l'envers d'une tôle d'acier galvanisé ondulée à la température ambiante. Par rapport aux matériaux classiques, la tôle ondulée ainsi traitée constitue un excellent isolant thermique. Cette méthode est autorisée par le ministère de la Construction du Japon sous le titre Méthode d'ignifugation n° R-0076. On obtient cette couche en une seule application. Numéro de référence SH2-5(2-10).

Automatic Cutting System/316

Developed by Gunze Limited, this is an accurate, consecutive and automatic punching and cutting device of mainly tubular knitted fabric having the following characteristics: detail cutting can be conducted with high accuracy; performance is 7.4 seconds per piece; system has an operation for sorting definite pieces required; and to automatically eliminate fabric defects. The firm seeks joint venture patent licensing, know-how licensing or cross licensing partners. Patents are pending. Reference Number GU1-4(17-14).

Dispositif de coupe automatique/316

Mis au point par Gunze Limited, ce dispositif précis, ordonné et automatique d'étampe et de coupe des tricots principalement tubulaires a les caractéristiques suivantes: il peut couper avec grande précision à raison de 7.4 secondes la pièce, s'adapter aux pièces requises et éliminer automatiquement les défauts de confection. La société sollicite l'entreprise conjointe, contrat de licence, licence de savoir-faire ou licences réciproques. Brevets en instance. Numéro de référence: GU1-4(17-14).

Continuous Fabric Density Measuring Device/316

Developed by Gunze Limited, a leading Japanese apparel manufacturer, the device has the following characteristics: Can measure the course and wale per unit fabric while it is running; the length of fabric being knitted; and the weight per unit of running fabric. Firm seeks joint venture, patent licensing, know-how licensing or cross licensing partners. Reference Number GU1-1(14-39).

Dispositif de mesure continue de la densité d'un tissu/316

Mis au point par Gunze Limited, un des fabricants de vêtements les plus importants du Japon, le dispositif a les caractéristiques suivantes: il peut mesurer les rangées et colonnes par unité de tissu confectionné, la longueur du tissu tricoté et la masse par unité de tissu confectionné. La société sollicite: entreprise conjointe, contrat de licence, licence de savoir-faire ou licences réciproques. Numéro de référence: GU1-1(14-39).

Heat Recovery System in Garment Factory/316

Developed by Gunze Limited, this is a consolidated and closed energy conservation system which uses exhaust heat adiabatically; has a lower liquid ratio and dries efficiently using suction heat pump and bleaching drain recovery know-how. The firm seeks joint venture, patent licensing, know-how licensing or cross licensing partners. Reference Number GU1-3(17-13).

ID Process/Chlor-Alkali/316

Developed by Kanegafuchi Chemical Industry Co., Ltd. and available for know-how licensing this technology to economically convert existing diaphragm cells to ion-exchange membrane cells at the same site. Cell to cell shutdown is possible by bypass short circuit (conversion to the ID process is possible without shutdown of the entire circuit). Energy saving and quality improvement of caustic soda are attainable by the conversion. Reference Number KA4-1(6-68).

Système de récupération de la chaleur dans une usine de confection/316

Il s'agit d'un système de conservation de l'énergie intégré et clos, mis au point par la Gunze Limited, qui utilise la chaleur évacuée de façon adiabatique; ce système présente un rapport de liquides inférieur et assure un séchage efficace en utilisant les connaissances acquises sur la pompe aspirante de chaleur et la récupération de la solution de décoloration. La société est à la recherche d'un consortium, d'un preneur de licence de brevet, d'un preneur de licence de savoir-faire ou d'un preneur intéressé par une concession réciproque de licence. Numéro de référence GU1-3(17-13).

Procédé DI/électrolyse des chlorures alcalins/316

La compagnie Kanegafuchi Chemical Industry Co., Ltd. offre les droits d'exploitation sous licence de la technique qu'elle a mise au point pour convertir, économiquement et sur place, les cellules à diaphragme en cellules à membrane échangeuse d'ions. On peut isoler une à une chaque cellule en la court-circuitant (la conversion en DI est alors possible sans couper totalement le courant du circuit). La conversion permet aussi d'économiser l'énergie et d'améliorer la qualité de l'hydroxyde de sodium obtenu. Numéro de référence KA4-1(6-68).

Licenses from Mosaic Enterprises, Inc., U.S.A.

The following products are offered for manufacture under license in Canada on behalf of the manufacturers by: Mr. Frank Brkic, Mosaic Enterprises, Inc., P.O. Box 667, Arlington, Virginia 22216, tel: (202) 659-2880. Please advise the Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102 of any interest expressed in any of these products so that he may provide liaison, commercial information to prospective licensees and/or licensors as well as any other appropriate assistance you may require. The Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5 should be advised of any agreements concluded in order that future enquirers are advised that a license has been granted.

Wilson Transporter/316

American firm offers a Canadian company the manufacturing and marketing rights to its apparatus for transferring the disabled from bed to wheelchair, car, bed or restroom facilities without lifting. Successfully used in hospitals, nursing and private homes the unit has an hydraulic lift system that allows patient transfer to be completed with a single attendant. Chrome-plated cold rolled tubular steel and welded construction will stand up to years of everyday service. It is designed for use by patients up to 135 kg. An interchangeable toilet seat is optional on this and all models of Wilson Transporters. They are available in portable models for easy handling, storage or transporting in automobile trunks and the following options are available: Security post can be used alone or in combination with the supportive belt to aid in the transfer of the physically disabled. The 20 cm steel post is mounted at the front of the seat to restrict forward movement. A padded covering for the post aids in patient comfort. The 15 cm wide supportive belt is especially useful in transferring patients with limited upper body control. This fully-adjustable belt is connected to the security post and fits around the patient's lower back providing additional stability and security. The Outrigger wheels provide additional stability to any of the Wilson Transporter models. The Outrigger attachment replaces the single front caster with two smaller casters mounted on a reinforced steel frame. The overall width of the Ontrigger attachment is 57.5 cm to allow easy passage through most doorways. The transporter is 97.5 cm back to front, 95 cm high from floor, seat range is 40 cm to 80 cm, width is 57.5 cm and models weigh from 25 kg to 29.25 kg. (See illustration page 46.)

Licences offertes par Mosaïc Enterprises, Inc., É.-U.

Les produits suivants sont offerts pour fabrication sous licence au Canada et pour le compte des fabricants par: M. Frank Brkic, Mosaïc Enterprises, Inc., P.O. Box 667, Arlington (Virginie) 22216, n° de tél: (202) 659-2880. Si l'un de ces produits vous intéresse, veuillez communiquer avec le Consulat du Canada, 3 Parkway Building, Suite 1310, Philadelphie (Pennsylvanie) 19102, qui se chargera de la liaison, d'obtenir des renseignements de nature commerciale à l'intention des preneurs et (ou) des donneurs éventuels de licences, et de fournir toute autre aide nécessaire. Par ailleurs, la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5, doit être avisée de toute entente conclue afin qu'elle puisse indiquer à toute personne qui en fera ultérieurement la demande qu'une licence a été accordée.

Porte-patient Wilson/316

Une firme américaine offre à une société canadienne ses droits de fabrication et de mise en marché de son appareil pour le transfert des personnes handicapées du lit au fauteuil roulant, à l'auto, au lit, ou aux installations sanitaires sans avoir à soulever le patient. Utilisé avec succès dans les hôpitaux, les centres d'accueil et les résidences privées, l'appareil est doté d'un circuit de levage hydraulique qui permet à une personne seale de déplacer le patient. L'appareil est fait de tubes d'acier chromé, laminés à froid et soudés et il est assez robuste pour résister à des années d'utilisation quotidienne. Il est conçu pour porter des patients pesant jusqu'à 135 kg. Un siège de toilette interchangeable est offert en option sur tous les modèles de porte-patient Wilson. L'appareil est offert en modèle portatif pour en faciliter la manutention, le rangement ou le transport dans le coffre de l'automobile. Le porte-patient peut être équipé des accessoires suivants: Un poteau de sécurité qui peut être utilisé seul ou avec la ceinture de soutien pour faciliter le transfert de la personne handicapée; le poteau en acier de 20 cm est monté sur le devant du siège pour limiter le déplacement vers l'avant. Un revêtement coussiné sur le poteau assure le comfort du patient. La ceinture de 15 cm de largeur est particulièrement utile pour le transfert de patients qui ont des problèmes de motricité de la partie supérieure du corps. Cette ceinture réglable est reliée au poteau de sécurité et s'ajuste au bas du dos du patient pour assurer un maintien et une sécurité accrus. Les roulettes doubles assurent une sécurité supplémentaire sur tous les modèles de porte-patient Wilson. La roulette simple est remplacée par un accessoire à deux roulettes plus petites montées sur un châssis d'acier renforcé. La largeur hors-tout de l'accessoire est de 57,5 cm pour faciliter le passage dans la plupart des encadrements de porte. Le porte-patient a une longueur de 97,5 cm, une hauteur de 95 cm (la hauteur du siège se règle entre 40 et 80 cm) et une largeur de 57,5 cm; le poids des modèles est compris entre 25 et 29,25 kg. (Voir l'illustration page 46.).

Cap Closure With Pouring Sleeve/316

American inventor offers the licensing rights to his method of opening and pouring oil from a can without tools, mess or drip. Oil cans are produced with a ring pull tab incorporating a flexible sleeve. When the tab is pulled up the flexible sleeve attached to the pull strip forms a pouring spout. This is a fast, convenient method of dispensing oil into the engines of vehicles and equipment. The cap is reclosable and reusable. (See illustration page 47.).

Languette de fermeture à bec verseur/316

Un inventeur américain offre les droits de fabrication sous licence pour sa méthode qui permet d'ouvrir les bidons d'huile et de verser cette dernière proprement sans faire de coulure et sans avoir besoin d'outil. Les bidons d'huile sont produits avec une languette comprenant un manchon flexible. Lorsqu'on soulève la languette, le manchon flexible fixé à celle-ci forme un bec verseur. C'est une méthode rapide et pratique de verser de l'huile dans les moteurs de véhicules et de machines. La languette peut se rabattre et être réutilisée. (Voir l'illustration page 47.).

Launching Trolley/316

A STOWAWAY EASY-LAUNCHER of rollers with stainless steel frame, on which design registration and a trade mark has been issued, is offered to a Canadian company for manufacture and sale. This is a lightweight yet strong, compact yet inexpensive accessory for launching most small boats and rigid inflatables. Used on vertical or inclined transoms, the roller and stainless steel STOWAWAY accessory is affixed to the transom by sliding pins or retaining bars into brackets permanently in position on the transom. Spring catches hold it in place. A Strap-On model is also available for flat bottomed boats. Overall width of launchers is 29.50 cm; and the overall height for Sailboard Models is 25.4 cm; Skeg - 24.20 cm; Strap-On - 40 cm; Universal - 13 cm; Laser - 14 cm; Mirror - 19.50 cm; and Avon - 33.1 cm. (See illustrations page 47.).

Chariot de mise à l'eau/316

On offre à une compagnie canadienne les droits de fabrication et de vente d'un STOWAWAY EASY-LAUNCHER, marque et modèle déposés, qui est composé de rouleaux sur un cadre en acier inoxydable. Cet article léger, robuste, compact et peu coûteux permet la mise à l'eau de la plupart des petites embarcations et canots pneumatiques rigides. Utilisable sur les embarcations à tableau vertical ou incliné, le STOWAWAY se fixe au tableau au moyen de tiges coulissantes ou barres de retenue sur des supports fixés au tableau en permanence. Il est maintenu en place par des loquets à ressorts. Un modèle à sangle est également disponible pour les embarcations à fond plat. La largeur hors-tout des chariots est de 29,5 cm; la hauteur hors-tout du modèle pour planches à voile est de 25,4 cm; modèle pour aileron - 24,20 cm; modèle à sangle - 40 cm; modèle universel - 13 cm; modèle pour Laser - 14 cm; modèle pour Mirror - 19,5 cm; modèle pour Avon - 33,1 cm. (Voir les illustrations page 47.).

Electronic Door Lock/316

American manufacturer offers a manufacturing license for its Comp-U-Lock, an electronic digital door lock for dead bolts. It is weatherproof, can be programmed, is equiped with a 110/12 vac UL listed power converter and standby battery circuitry using two 9-volt alkaline batteries. The dead bolt features all welded hardened steel construction and operates on 12 VDC 350 ma provided by the inner control unit. (See illustration page 47.).

Verrou électronique de porte/316

Un fabricant américain offre la licence de construction pour un verrou électronique numérique "Comp-U-Lock" pour verrou de porte à pêne dormant. Ce dispositif étanche et programmable est alimenté par un convertisseur autonome 110/12, et possède un circuit de secours à piles alcalines (2) de 9 V. Le mécanisme du pêne dormant est en acier trempé soudé et fonctionne sur un courant 12 V CC et 350 mA fourni par le boîtier de commande placé à l'intérieur de la pièce. (Voir l'illustration page 47.).

High Density Compactor/316

American company will provide complete manufacturing drawings and technical data to a Canadian company for the manufacture under license of its compactor. The product was developed for the U.S. Government to meet high density compaction requirements in land-based mess-hall facilities and ship-board galleys. Control panel features include: Motor Run; Override; Stop; Start; Compactor Full; Container Full; Oil Hot; Heater On; Joystick Gate Open, Ram Forward, Ram Return; Gate Closed; Selector Switches-Deodorizer On/Off, Cycle Single/Continuous, Manual-Off/Automatic.

Compacteur de grande puissance/316

Une entreprise américaine offre à une société canadienne tous les dessins d'atelier et les données techniques nécessaires pour la fabrication sous licence de son compacteur. Mis au point spécialement pour le gouvernement des États-Unis, le compacteur satisfait aux exigences du compactage de grande puissance dans les réfectoires des bases militaires et les cuisines des bateaux. Le panneau de commande loge les commandes et les voyants suivants: Motor Run (moteur en marche); Override (commande prioritaire); Stop (arrêt); Start (mise en marche); Compactor Full (compacteur plein); Container Full (récipient plein); Oil Hot (huile chaude); Heater On (élément chauffant en marche); un levier de com-

mande Gate Open (porte ouverte), Ram Forward (avance du piston), Ram Return (retour du piston) et Gage Closed (porte fermée); ainsi qu'un sélecteur: Deodorizer On/Off (marche/arrêt du désodorisant), Cycle Single/Continuous (cycle simple/continu) et Manual-Off/Automatic (fonctionnement manuel — arrêt — fonctionnement automatique).

Automatic Loading Dock/316

American company offers licensing rights to its ROLLOADER™ for the transfer of cargo containers and other loads to and from moving trains or pedestal bed semitrailers which eliminates switching and drayage. To unload, the ROLLOADER forks are engaged by side couplers extended from car under container for transfer from moving train. The train moves forks along, latched between side couplers, rotating support arms to extend, lift, and retract the forks to release, lift, and swing the container off the car. The container is set on parallel bars or a roller chain conveyor as arms revolve and lower forks. The arms are quickly revolved when empty to bring forks to coupling position in time to couple the next container on the train. To load, the action is reversed. ROLLOADERS can be made to unload and load trains from either direction, handle semitrailers, and release load locking devices on the cars. From small industry to large railway yard, ROLLOADERS can transfer the loads to hold, set down, or transfer back to another train or vehicle. They can load accumulating conveyors selectively and each therefrom load a particular train moving by, thus simplifying classification, eliminating humping, and reducing yard delay. The capacity of the loader will exceed 300 12 m containers or semi-trailers per hour transferred between storage conveyor and trains passing by at about 4.8 km/h. This is about a ten fold reduction is handling time over present practice and can reduce yard delay, i.e., the time containers are kept at the yard, thereby increasing yard efficiency and capacity and reducing the land area required for a given volume of business.

Quai de chargement automatique/316

Une compagnie américaine offre les droits d'exploitation sous licence de son ROLLOADER™ pour le transbordement de conteneurs et d'autres charges de trains ou de semi-remorques en mouvement ce qui élimine l'aiguillage et le charriage. Pour le déchargement les fourches du ROLLOADER sont entraînées par des attelages latéraux déployés du wagon sous le conteneur pour le transbordement à partir du train en mouvement. Le train fait avancer les fourches enclenchées entre des attelages latéraux ce qui fait pivoter les supports pour allonger, soulever et retirer les fourches afin de dégager, de soulever et de décharger le conteneur. Le conteneur est déposé sur des barres parallèles ou sur les rouleaux d'un convoyeur à chaîne pendant que les supports pivotent et abaissent les fourches. Les supports pivotent ensuite rapidement pour ramener les fourches en position d'attelage à temps pour l'accrochage au conteneur suivant sur le train. Pour le chargement la manoeuvre est inversée. Le ROLLOADER peut être utilisé pour le chargement ou le déchargement de trains arrivant de l'une et l'autre direction et de semi-remorques ainsi que pour le déclenchement des dispositifs d'arrimage sur les wagons. Dans les petites installations industrielles comme dans les grandes cours de triage le ROLLOADER permet le déplacement des charges pour les retenir, les déposer ou les faire passer à un autre train ou véhicule. On peut l'utiliser pour alimenter sélectivement des convoyeurs d'accumulation à partir desquels il sera possible de charger des trains différents en mouvement ce qui simplifie le triage tout en éliminant l'accumulation en tas et en racourcissant les délais de triage. La capacité de cette machine est de plus de 300 conteneurs ou semi-remorques de 12 m à l'heure, transbordés de convoyeurs d'entreposage ou de trains avançant à environ 4,8 km/h. Cela correspond à une réduction par un facteur de 10 environ des temps de manutention par les méthodes actuelles et permet de raccourcir les délais de triage, c.-à-d. les intervalles pendant lesquels les conteneurs restent dans les cours de traige, accroissant ainsi l'efficacité des cours et leur capacité tout en réduisant la superficie nécessaire pour un volume donné de marchandises.

Material Handling/316

American manufacturer offers manufacturing and marketing rights to its LoProDolly the newest idea in a time-saving, cost-cutting material handling pallet in which top and bottom rows of casters are bolted to U-shaped steel panels. The sturdy, rugged construction assures even, stable load distribution, low profile (only 10 cm high), large load capacity (up to 5,400 kg) rugged stability, easy to position, and to roll on and off a truck. LoProDolly is designed for streamlining pallet build up and breakdown functions within ter-

Manutention de marchandises/316

Un fabricant américain offre les droits de fabrication et de mise en marché de son chariot de manutention LoProDolly, le plus nouveau concept dans la manutention de marchandises sur palettes, économique et rapide. Des rangées de roulettes sont boulonnés sur le dessus et le dessous de panneaux d'acier ondulés. La construction robuste et durable assure une répartition stable et uniforme de la charge; le chariot a un profil bas (seulement 10 cm de hauteur), une grande capacité de charge (jusqu'à 5 400 kg) et une bonne

minals and warehouses. LoProDolly is also ideal for omni-directional movement of loaded pallets to queuing and staging areas, can be used in place of ball mats and similar fixed-to-the floor devices.

stabilité; il est facile à placer et permet le chargement et le déchargement d'un camion par roulage. Le chariot LoPro-Dolly est conçu pour l'empilage et la répartition des palettes dans les centres de livraison et les entrepôts. Il peut aussi se déplacer dans tous les sens afin d'amener les palettes chargées vers les aires d'attente et d'entreposage et peut être utilisé à la place des tapis roulants ou d'autres dispositifs analogues fixés au sol.

Inter Depot Transporter/316

American manufacturer offers patent, drawings, technical information and limited inventory for the manufacture and distribution of the material handling equipment used in the transportation of palletized loads of various types for use in large depot facilities. The vehicle has a movable one-man cab capable of rapid powered transition from a position in front of the bed to a position alongside the bed to permit nosing the bed against a dock or building. The bed is enclosed and capable of elevating and adjusting height within a range of 120 cm to 180 cm. It has left and right reversible conveyors, which can be operated independently, and allow for loading from and unloading onto dock mounted conveyors. Incorporated in each vehicle is patented "Trailing Road Arm Suspension System" which provides full hydropneumatic independent wheel suspension allowing each wheel to raise or lower to various heights, which allows leveling of the vehicles to suit the terrain.

Transporteur inter-dépôts/316

Un constructeur américain propose de fournir le brevet, les plans, les informations techniques et un inventaire limité pour la construction et la vente d'un équipement de manutention pouvant être utilisé, dans les entrepôts importants, au déplacement de charges sur palettes de différents types. Le véhicule est équipé d'une cabine monoplace mobile qui peut être déplacée rapidement de l'avant au côté du plateau pour positionner plus commodément celui-ci contre un bâtiment ou une plate-forme de chargement. Le plateau est fermé et peut être déplacé en hauteur entre 120 cm et 180 cm; il est de plus équipé de deux convoyeurs à tapis utilisables indépendamment, l'un situé sur la partie droite du plateau, l'autre sur la partie gauche. Ils peuvent être positionnés en face des convoyeurs de la plate-forme de chargement pour faciliter la manutention des charges. Chaque véhicule st équipé d'un "Système de suspension à bras tiré" breveté, qui assure une suspension hydropneumatique indépendante à chaque roue, celle-ci s'abaisse ou se soulève, épousant le terrain tout en maintenant le véhicule de niveau.

All Terrain Vehicles/316

American manufacturer offers manufacturing and marketing rights to its SUR-TREK all terrain vehicle consisting of two separate hulls with patented torsion bar stabilization and universal joint power connection to permit all eight wheels to be driven even when the rear hull is displaced in relation to the forward hull. The twin hull approach allows the SUR-TREK vehicle to follow irregular contours with a minimum loss of traction since, like a caterpillar, it can conform to elevation differences of the ground surface. Engines are 15 RW two cycle air cooled with variable speed drive and gear box located in the forward portion of the rear hull. It has a 27 litre fuel tank. A special insulated muffler with sound deadening material and air intake silencing on the carburator results in a very quiet running vehicle. Steering mechanism uses the conventional boat tiller action principal by articulating or displacing the rear hull with respect to the front hull to achieve an inside turning radius of 4 m. The ATV will carry four people or a total of 337 kg at up to 50 km/h. Since the driver's compartment is arranged much like an automobile, with conventional steering wheel, gas and brake pedals and gear shift lever, the SUR-TREK is easy to operate.

Véhicules tout terrain/316

Une société américaine offre les droits de fabrication et de mise en marché de son véhicule tout terrain SUR-TREK. Celui-ci comprend deux coques distinctes et des barres de torsion brevetées qui assurent la stabilité du véhicule. Des raccords munis de joints universels permettent l'entraînement des huit roues, même lorsque la coque arrière est désaxée par rapport à la coque avant. Le principe de la coque double permet au véhicule SUR-TREK de rouler sur des surfaces irrégulières sans pratiquement aucune perte de traction puisque, comme une chenille, il peut épouser les différences d'élévation de la surface du sol. Il est équipé d'un moteur à deux temps de 15 kW, refroidi à l'air. La boîte de transmission à vitesses variables est placée dans la partie avant de la coque arrière. Son réservoir de carburant a une capacité de 27 litres. Le silencieux insonorisé spécial, le matériau d'insonorisation du compartiment moteur et un dispositif d'atténuation du bruit monté au niveau de l'admission d'air du carburateur en font un véhicule très silencieux. Le fonctionnement du mécanisme de direction se fonde sur le principe classique du gouvernail de bateau: la coque arrière est articulée ou déplacée par rapport à la coque avant de façon à réaliser un rayon de braquage intérieur de 4 m. Le VTT transporte quatre personnes ou une charge totale de 337 kg à une vitesse pouvant atteindre 50 km/h. Comme le poste du conducteur est semblable à celui d'une automobile, qu'il comporte un volant de direction classique, un accélérateur, une pédale de frein et un levier de changement de vitesses, le SUR-TREK se conduit facilement.

Cargo Transfer Equipment/316

American manufacturer offers manufacturing and marketing rights to a Canadian company for its RampVeyor for use with belly cargo type aircraft that reduces secondary handling and combines the dual functions of loading and transporting in one compact self-propelled vehicle. It has wide belts, hydraulically elevates to required height and feeds directly into belly compartment via an extendable belt thus eliminating congestion and risk of dropping or damaging cargo and saves time. It handles any type of cargo, even rough castings. The power steering facilitates maneuvering in congested ramp areas; truck engine powers the RampVeyor drives through automatic transmission and standard rear axle; its 150 kW gasoline engine provides extra power margin for towing loaded pallets; and a heavy-duty battery, 60 ampere alternator, provides ample current for the floodlight load. The conveyor can be fully controlled and incorporates safety features.

Matériel de transbordement du fret/316

Un fabricant américain offre à une firme canadienne les droits de fabrication et de mise en marché du "RampVeyor". Ce véhicule automoteur compact, destiné au service des aéronefs à soute à fret ventrale, simplifie la manutention en assurant à la fois les fonctions de chargement et de transport des marchandises. Il est équipé de larges bandes transporteuses, et sa partie avant se soulève, grâce à un circuit hydraulique, à la hauteur requise pour déverser directement, par l'entremise d'une rallonge de bande transporteuse, la cargaison dans le compartiment ventral de l'aéronef. Ce procédé élimine l'encombrement, les risques d'échapper ou d'endommager les bagages et fait gagner du temps. Il convient à toutes les sortes de fret, y compris les pièces brutes de fonderie. Il est muni d'une servodirection qui facilite les manoeuvres sur les aires de trafic encombrées. Le moteur du camion actionne le RampVeyor par l'intermédiaire d'une boîte de vitesses automatique et d'un pont arrière standard. Son moteur à essence de 150 kW lui fournit un surplus de puissance pour le remorquage de palettes chargées, et sa batterie à grande capacité ainsi que son alternateur de 60 ampères fournissent suffisamment de courant pour éclairer la zone de chargement. Le convoyeur possède un jeu complet de commandes de même que des dispositifs de sécurité.

Magnetic Slip Coupling/316

Swedish firm offers a Canadian company the manufacturing rights for any or all applications and the negotiated marketing rights for a magnetic slip coupling for high and fluctuating working loads. An outer driving input rotor is formed as a part of the housing and carries in its interior a series of circumferentially spaced permanent magnets in the form of axially extending bars of rectangular cross-section. The housing of the coupling is rotatably journalled on the output shaft of the coupling, the shaft also carrying an inner, driven rotor. The rotor is constructed in the form of a compact stack of annular iron plates provided at their outer periphery with recesses that form grooves extending axially along the rotor and filled with aluminum. The rotor is provided with fan blades for cooling purposes. The torgue transmitted by the coupling in relation to the actual slip rate is relatively small when the slip is high and rises to a significant peak when the slip is reduced, i.e., as the inner driven rotor of the coupling, and thus also the centrifuge rotor of the separator, approach their normal operational speeds. The advantage of having low torque at a high slip rate is that the starting time is sufficiently long to allow the removal of heat generated in the coupling. The high torque at small slip ensures that the rotating part of the connected machine will maintain its normal operational speed as much as possible. The main advantages are: No tendency to overheat the motor or coupling during high and fluctuating working load; the connected machine reaches its proper rotational velocity quicker after starting and after fluctuations in the working load compared to friction couplings; no danger of oil leakage as with hydraulic couplings; and, standard motors can be used instead of motors of special design.

Coupleur magnétique/316

Une firme suédoise offre à une compagnie canadienne les droits de fabrication et les droits de mise en marché négociés pour l'ensemble des applications ou une application quelconque, d'un coupleur magnétique pour les charges de travail élevées ou variables. Un rotor d'entraînement à prise extérieure est abrité dans le logement et porte, à l'intérieur, des aimants permanents de section rectangulaire placés axialement sur la circonférence. L'arbre de sortie est monté sur des paliers dans le logement du coupleur et porte également un rotor entraîné interne. Le rotor est composé d'un empilage compact de plaques de fer annulaires qui portent à leur périphérie des cavités formant des rainures qui s'étendent le long de l'axe du rotor et qui sont remplies d'aluminium. Le rotor comporte des pales de ventilation pour le refroidissement. Le couple, transmis par le coupleur en fonction du taux de glissement réel, est relativement faible quand le glissement est élevé et augmente jusqu'à une valeur importante quand le glissement est réduit, c'est-à-dire, quand le rotor entraîné interne, et donc le rotor centrifuge du séparateur, approchent de leur vitesse normale de fonctionnement. L'avantage du faible couple à taux de glissement élevé est que la période de mise en marche est suffisamment longue pour permettre de dissiper la chaleur générée par le coupleur. Le couple élevé en glissement faible assure que la pièce rotative de la machine entraînée, maintient sa vitesse de fonctionnement normale dans la mesure du possible. Les avantages principaux sont qu'il n'y a aucune tendance à la surchauffe pour le moteur ni le coupleur aux charges de fonctionnement élevées ou variables, la machine à entraîner atteint sa vitesse de rotation appropriée plus rapidement après la mise en marche et après la variation de la charge de travail par rapport aux dispositifs à friction, il n'y a aucun danger de fuite d'huile comme dans le coupleur hydraulique et des moteurs standards peuvent être utilisés au lieu de moteurs spéciaux.

Proportion Mixing Unit/316

Swedish firm offers a Canadian company the manufacturing rights for any or all applications and the negotiated marketing rights for a PROPAL proportioning unit for liquid ingredients in mix processing of foods and beverages. It is claimed to be hygienic, accurate, has automatic shutdown if supply of any liquid ingredient is interrupted; has automatic adjustment of capacity to flow rate fluctuations in downstream equipment (from zero to full capacity); the ingredient ratios are easily changed or adjusted — even during operation; its is designed for automatic cleaning in place; is adaptable to any required line capacity and any number of mix ingredients; change of recipe can be manual, semi-automatic or automatic — compatible with computerised process control systems; has custom-built unitized construction — ready for plug-in installation; Propal can handle fluids containing fibres; Propal is explosion-proof and may be remote-controlled.

Mélangeur proportionnel/316

Une firme suédoise offre à une compagnie canadienne les droits de fabrication sous licence des applications d'un appareil PROPAL pour proportionner les ingrédients liquides en cours de transformation de mélanges d'aliments et de boissons, ainsi que les droits de mise en marché. Cet appareil est hygiénique et précis; il y a fermeture automatique si l'approvisionnement en un des ingrédients liquides est interrompu; la capacité de l'équipement aval s'adapte automatiquement aux variations de débit (de zéro à la capacité maxima); on peut changer ou régler facilement les portions des ingrédients, même en cours de fabrication; sa conception permet le nettoyage automatique de certaines parties; on peut l'adapter à n'importe quelle capacité de production requise, et à n'importe quel nombre d'ingrédients du mélange; on peut modifier la recette de façon manuelle, semi-automatique ou automatique (possibilité d'informatisation du réglage des opérations); on le construit sur commande à l'unité, prêt à brancher; Propal peut traiter des liquides contenant des fibres; il est à l'épreuve des explosions et on peut le commander à distance.

Centriheat/316

Swedish firm offers a Canadian company the manufacturing rights for any or all applications and the negotiated marketing rights for a method and apparatus, developed to the pilot plant stage, for fast heating and cooling of fluids, e.g., from room temperature to 160°C and back in one second with 90 per cent heat recovery and simultaneous mixing and homogenization. A cone rotates rapidly in a housing. The fluid to be treated passes along both the outer and the inner surface of the cone, and rounds its edge. Heat is created by internal friction in the fluid in a zone near the edge. The fluid will have a higher temperature when leaving that zone than when approaching it. Hence the incoming fluid is heated through the cone by the outgoing fluid. The rotation and the fluid speed create exceptionally high heat transfer coefficients along the cone. The fluid is, therefore, already hot when it arrives at the edge zone. Main uses are in sterilization and as reactors for hydrolysis, homogenization, mixing, extraction, leaching, dissolving, recrystallization, and, emulsification. (See illustration page 47.).

Centriheat/316

Une société suédoise propose à une compagnie canadienne les droits d'un certain nombre ou de l'ensemble des applications et des droits négociés de mise en marché pour une méthode et un dispositif permettant un réchauffement et un refroidissement rapides des fluides. Exemple: de la température ambiante à la température de 160°C et vice-versa en une seconde, avec 90% de récupération de la chaleur, brassage simultané et homogénisation en utilisant un cône tournant très rapidement dans un carénage. Le fluide à trait circule sur les parois extérieures, intérieures et sur la bordure d'un cône. La chaleur est produite par le frottement interne du fluide dans la partie du cône proche de sa bordure. Le fluide sera réchauffé entre son arrivée et son départ de cette zone, et le fluide d'entrée est réchauffé par le fluide de sortie. Le mouvement de rotation et la vitesse de déplacement du fluide produisent des coefficients de transfert exceptionnellement élevés sur les parois du cône. Le fluide étant déjà chaud lorsqu'il arrive sur la bordure du cône. Ce dispositif est principalement utilisé en stérilisation, où il sert de réacteur en hydrolyse, en homogénisation, en mélange, en extraction, en lixiviation, en dissolution, en re-cristallisation et en émulsification. (Voir l'illustration page 47.).

Dispenser/316

Swedish firm offers a Canadian company the manufacturing rights for any or all applications and the negotiated marketing rights for a dispenser with a rotating feed screw which operates within a circular cylindrical part of the conduit to convey material to be dispensed to an outlet from the delivery conduit. At the outlet end the screw is designed to cooperate with a closing device that can rotate with the screw to close the delivery conduit at a first position of the closing device with respect to the screw. When the dispensing operation starts the closing device moves with respect to the screw to a second position and forms an opening that is fixed with respect to the screw and rotates with the screw during the dispensing operation. The closing device then

Distributeur/316

Une firme suédoise offre à une société canadienne les droits de fabrication pour une ou toutes les utilisations d'un convoyeur à vis sans fin et les droits de commercialisation y afférant. Le convoyeur est monté dans un tube pour le convoyage de matière à amener à la sortie du conduit d'alimentation. A l'extrémité sortie, la vis est couplée à un mécanisme de fermeture qui ferme le conduit d'alimentation à la première position du dispositif de fermeture par rapport à la vis sans fin. Lorsque le convoyage commence, le mécanisme de fermeture se déplace, par rapport à la vis, à la deuxième position et forme un orifice qui est fixe par rapport à la vis et qui tourne en même temps que la vis pendant le convoyage. Le mécanisme de fermeture revient

returns to the first position when the dispensing operation is stopped. Accuracy is improved by: no occasional stop position of the screw; good synchronization of closing device to the screw; distinct closure of the feed screw, and the large delivery opening gives undisturbed delivery through the opening; no clogging hazards in the closing device; no compression of the material means; no variations in the bulk density; no tendency of material separation into different particle fractions; and, high capacity.

ensuite à la première position lorsque cesse le convoyage. La précision est accrue car il n'y a pas de position d'arrêt de la vis, le mécanisme de fermeture et la vis sans fin sont bien synchronisés, la fermeture de la vis sans fin et l'orifice d'alimentation de gros diamètre assurent une alimentation continue, le mécanisme de fermeture ne risque pas de s'engorger, le fait qu'il n'y ait aucune pression exerdcée sur la matière signifie qu'il n'y a aucune variation de la densité du vrac, la matière ne risque pas de se fragmenter en plus petites particules, le débit est élevé.

Dosing Device/316

Swedish firm offers a Canadian company the manufacturing rights for any or all applications and the negotiated marketing rights for a dry powder measuring and dosing device. The powder is fluidized into an airborne suspension and flows through a pipe which opens into the lower part of a closed vessel suitably made of a transparent material. The vessel is connected by a pipeline to a vacuum pump. A powder is collected at the bottom of the vessel forming a level which is kept constant by means of level-measuring instruments which control a valve inserted in the pipeline. A pipeline extends downwardly from the bottom of the vessel to a mixing tank. Inserted in the pipeline is a dosing means which feeds measured portions of powder down into the tank. The tank is connected by means of a pipeline to a vacuum pump. In the vessel, as well as in the tank, an absolute pressure of about 10 mm Hg is maintained. The advantages are: On-line continuous dosing, accurate and technically reliable dosing device — dosing under vacuum for 1) increasing the accuracy of volumetric dosing, 2) solving dust problems, and 3) protecting air-sensitive products.

Appareil doseur/316

Une firme suédoise offre à une compagnie canadienne les droits de fabrication sous licence des applications d'un appareil à mesurer ou à doser des poudres sèches, ainsi que les droits de mise en marché. La poudre est fluidifiée sous forme d'aérosol et s'écoule par un tuyau qui se déverse dans la partie inférieure d'un récipient fermé adéquatement fait d'une matière transparente. Un tuyau relie le récipient à une pompe à vide. La poudre s'accumule au fond du récipient jusqu'à un niveau gardé constant par des instruments de mesure reliés à une valve située dans le tuyau. Une conduite va du fond du récipient jusqu'à un réservoir de mélange. A l'intérieur de la conduite, se trouve un système de dosage qui laisse passer dans le réservoir des portions mesurées de poudre. Le réservoir est relié à une pompe à vide au moyen d'un tuyau. Dans le récipient ainsi que dans le réservoir, on maintient une pression absolue d'environ 10 mm de Hg. Avantages: dosage en continu pendant la fabrication, appareil précis et techniquement fiable (dosage volumétrique sous vide pour 1) augmenter la précision, 2) éliminer les problèmes de poussière et 3) protéger les produits sensibles à l'air.

Instant Anaerobic Fermentation/316

Swedish firm offers a Canadian company the manufacturing rights for any or all applications and the negotiated marketing rights for a fermentation unit in which a clarified substrate or work is continuously pumped to a loop containing a high yeast concentration. The loop consists of a spiral reactor creating a plug flow, a centrifuge and a cooler. After fermentation in the spiral reactor the mixture of wort and yeast is centrifuged to separate it into a fermented wort and a living yeast cell mass. The yeast free fermented wort (or beverage) is continuously discharged from the centrifuge with a controlled CO_2 content. The yeast stays in the loop and is cooled prior to the mixing point where new substrate is continuously pumped into the loop. Used for cider, fruit wines, adjunct wort for beer, fine chemicals and pharmaceuticals, the ALFERM unit is claimed to reduce fermentation time from days to minutes, is easy to control, hygienic and compact enough to be designed as a mobile unit.

Fermentation instantanée anaérobie/316

Une société suédoise offre à une compagnie canadienne les droits de fabrication sous licence pour l'une ou toutes les applications, ainsi que les droits de commercialisation négociés d'un dispositif de fermentation dans lequel le substrat clarifié, au moût, est aspiré en continu dans une boucle contenant une concentration élevée de levure. La boucle se compose d'un réacteur hélicoïdal créant un écoulement avec effet bouchon, d'une centrifugeuse et d'un réfrigérant. Après fermentation dans le réacteur hélicoïdal, le mélange de moût et de levure est centrifugé de façon à séparer la phase renfermant le moût fermenté de la phase renfermant la masse de cellules vivantes constituant la levure. On obtient continuellement après l'étape de la centrifugeuse le moût fermenté (ou la boisson) exempt de levure dont la teneur en CO_2 est contrôlée. La levure qui reste dans la boucle est refroidie avant d'être à nouveau mélangée au point où le nouveau substrat est aspiré en continu dans la boucle. Le dispositif ALFERM peut servir à la fabrication de cidre, de vins fruités, de moût additionnel pour la bière, et de produits chimiques et pharmaceutiques purs; il permet de réduire le temps de fermentation de quelques jours à quelques minutes, son procédé est facile à contrôler, les normes de propreté son suffisantes et grâce à ses dimensions compactes il peut être utilisé comme un dispositif portatif.

Hollow Jet Heater/316

Swedish firm offers a Canadian company the manufacturing rights for any or all applications and the negotiated marketing rights for the microwave heat treatment of fluids. The liquid to be heat treated (sterilized) is formed into a free-falling film with an annular cross section. The film is sterilized in a fraction of a second by a hollow jet heater which is developed to the laboratory stage. The sterile film is then immediately cooled by being caught in a boundary layer of cool previously sterilized liquid streaming along the inner surface of a funnel. Main uses: As research and control instrument for the chemical industry; heating blood in vivo; producing pharmaceuticals; spinning proteins; stabilizing beverages; and, as reactor for controlled chemical reactions. No steam is injected or flashed away and, as a consequence, no problems with steam and steam quality and no loss of flavour; the heat pulse is well defined and very short and thus UHT sterilization can be performed and unwanted reactions affecting taste and flavour can be avoided; there is no heat transfer surface which means no fouling and no heat transfer variations with time.

Stérilisateur à jet creux/316

Une firme suédoise offre à une compagnie canadienne les droits de fabrication pour l'une ou l'autre ou l'ensemble des applications du traitement de liquides par micro-ondes et les droits de mise en marché tels que négociés. Le liquide à stériliser coule dans l'appareil en formant un cylindre aux parois minces. Il est stérilisé en une fraction de seconde par un dispositif de chauffage en jet creux dont la mise au point en est au stade expérimental. Le film liquide stérile est ensuite immédiatement refroidi par contact avec une couche de liquide stérile déjà refroidi qui s'écoule à la surface interne d'une structure conique. Principales utilisations: outil de recherche et de contrôle dans l'industrie chimique, chauffage du sang, fabrication de produits pharmaceutiques, enroulement de protéines, stabilisation de boisson et réacteur pour les réactions chimiques contrôlées. Comme il n'y a ni injection de vapeur, ni vaporisation instantanée, il n'y a pas de problèmes liés à la production ou à la qualité de la vapeur ou à la perte de goût; l'impulsion de chaleur étant nette et très courte, on peut réaliser la stérilisation à U.H.T. et prévenir les réactions qui altèrent le goût; enfin, comme il n'y a pas de surface de transfert de chaleur, il n'y a ni encrassement, ni problèmes de variation de transfert de chaleur.

Bibliography

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1st China International Manufacturing/Processing/ Technology Exposition/Conference/316

This exhibition will be held in Peking, November 23-28, 1982, to find suppliers and possible partners to expand Chinese business and will provide an opportunity to discuss the sale of your products and new technology on a one-to-one basis. Additional information may be obtained from: China '82, Int'l Conferences & Exhibitions Inc., 950 3rd Avenue, New York, N.Y. 10022 Tel: (212) 308-2210 Telex: 234107.

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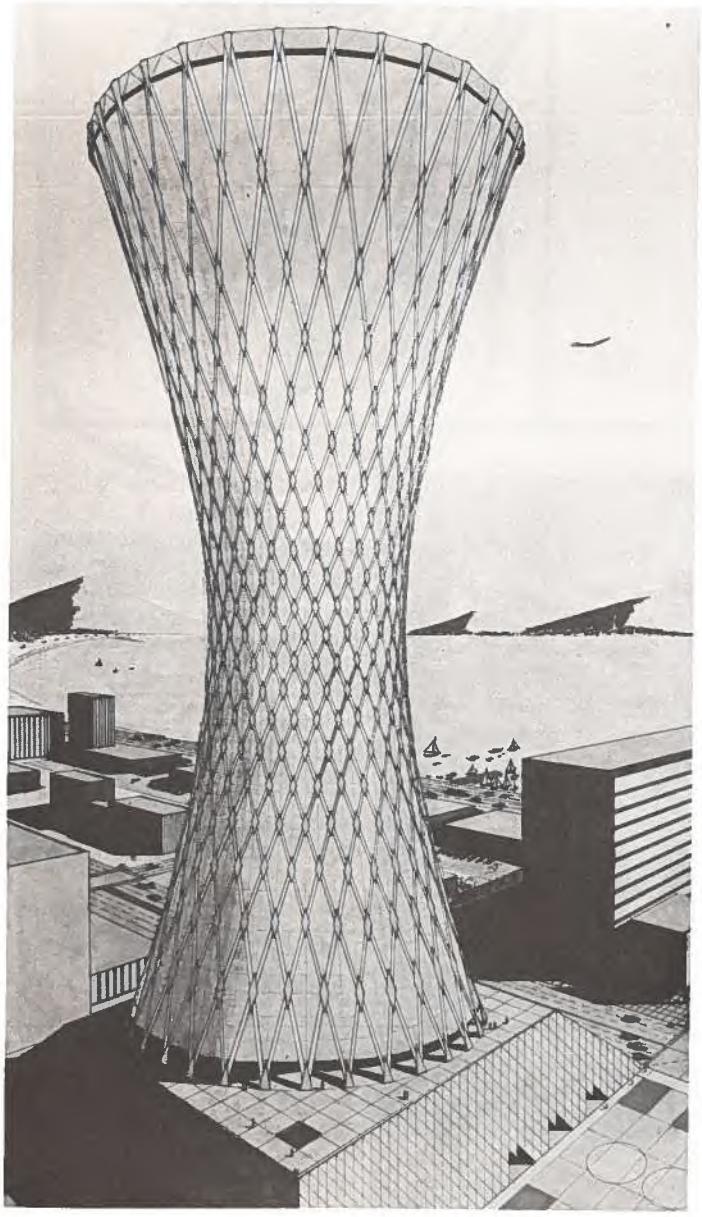
Cette exposition se tiendra à Pékin du 23-28 novembre 1982 en vue de trouver des fournisseurs et des associés possibles pour le développement du commerce en Chine. Elle vous fournira l'occasion de discuter de la vente de vos produits et des nouvelles techniques d'égal à égal. On peut obtenir des renseignements supplémentaires auprès de: Conférences et expositions internationales en Chine 1982, 950 3rd Avenue, New York, N.Y. 10022. Tél.: (212) 308-2210, Télex: 234107.

Vacuum Cooling Units ▲
(See page 4)
Installations de réfrigération sous vide ▲
(Voir page 4)



◀
Hyperbolic Ring Tower
(See page 4)
Tour hyperbolique
(Voir page 4)
◀

Industrial Spray Booths and Ancilliary Equipment ▼
(See page 6)
Cabines de pistolage industrielles et équipement auxiliaire ▼
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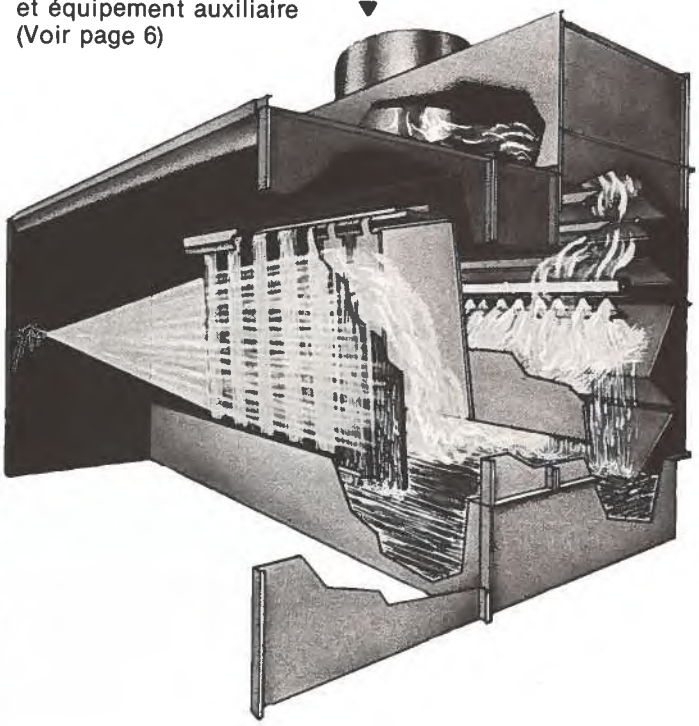

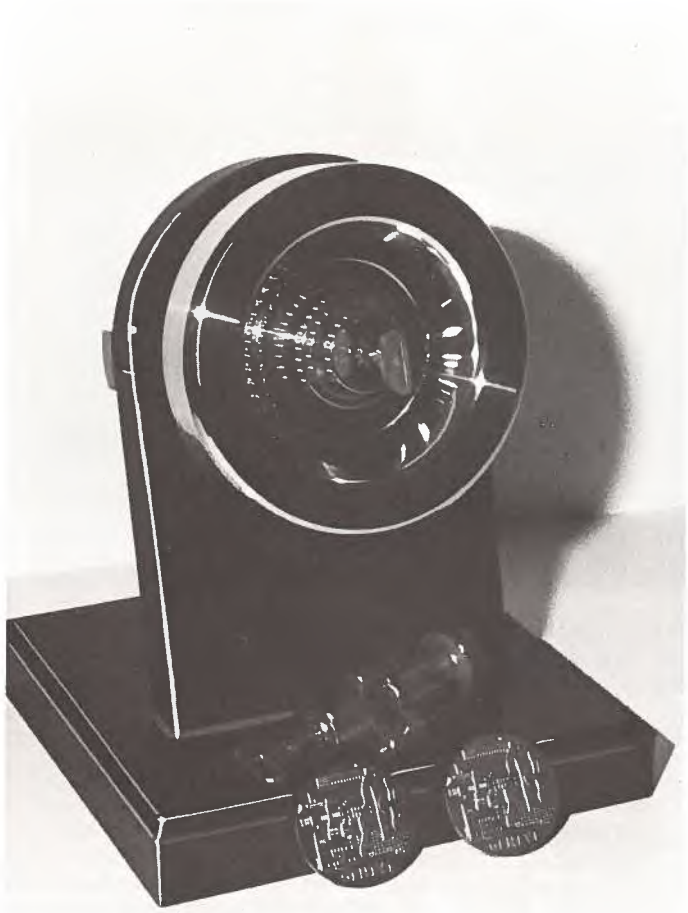

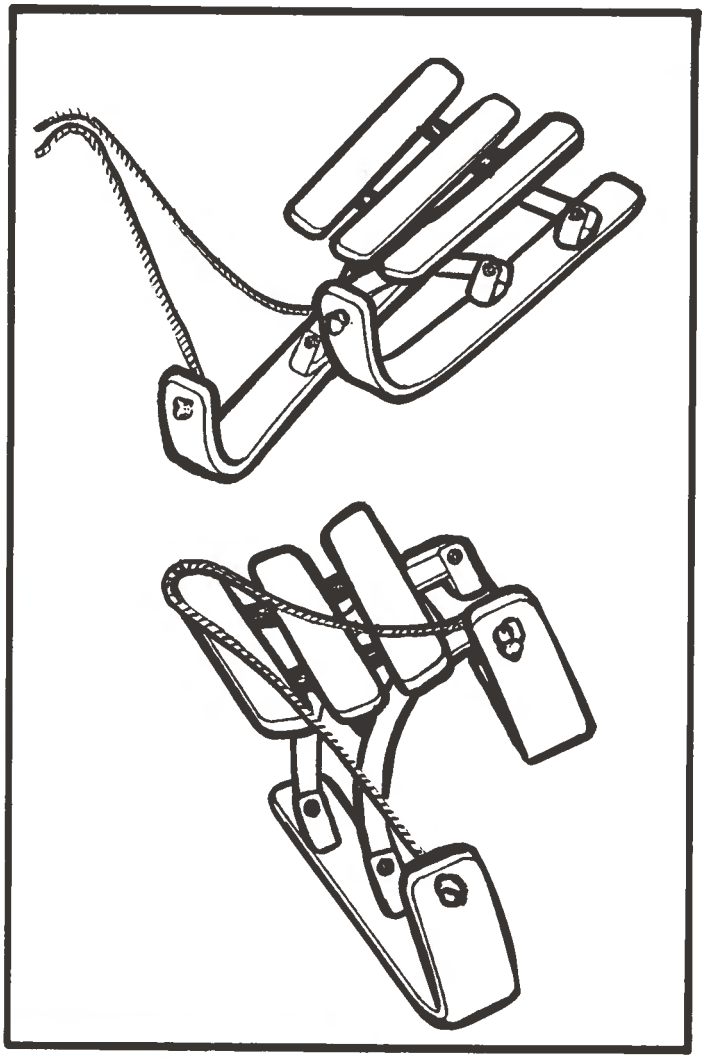

Security Lock and Bolt ▲
(See page 6)
Verrou et pêne de sûreté ▲
(Voir page 6)

▲ Toboggan on Skis
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▲ Toboggan sur patins
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Wilson Transporter ▶
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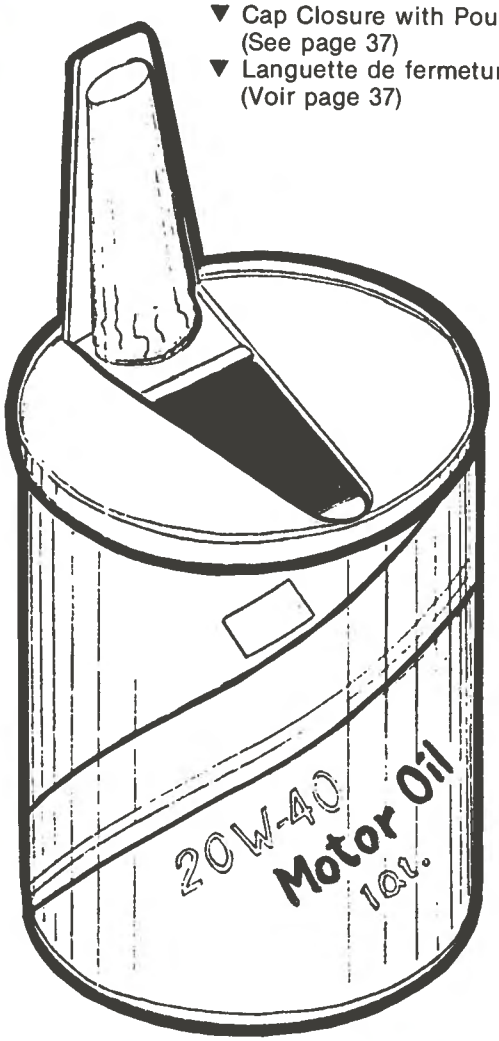
Porte-patient Wilson ▶
(Voir page 36)

▼ Cap Closure with Pouring Sleeve
(See page 37)
▼ Languette de fermeture à bec verseur
(Voir page 37)



▼ Electronic Door Lock
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▼ Verrou électronique de porte
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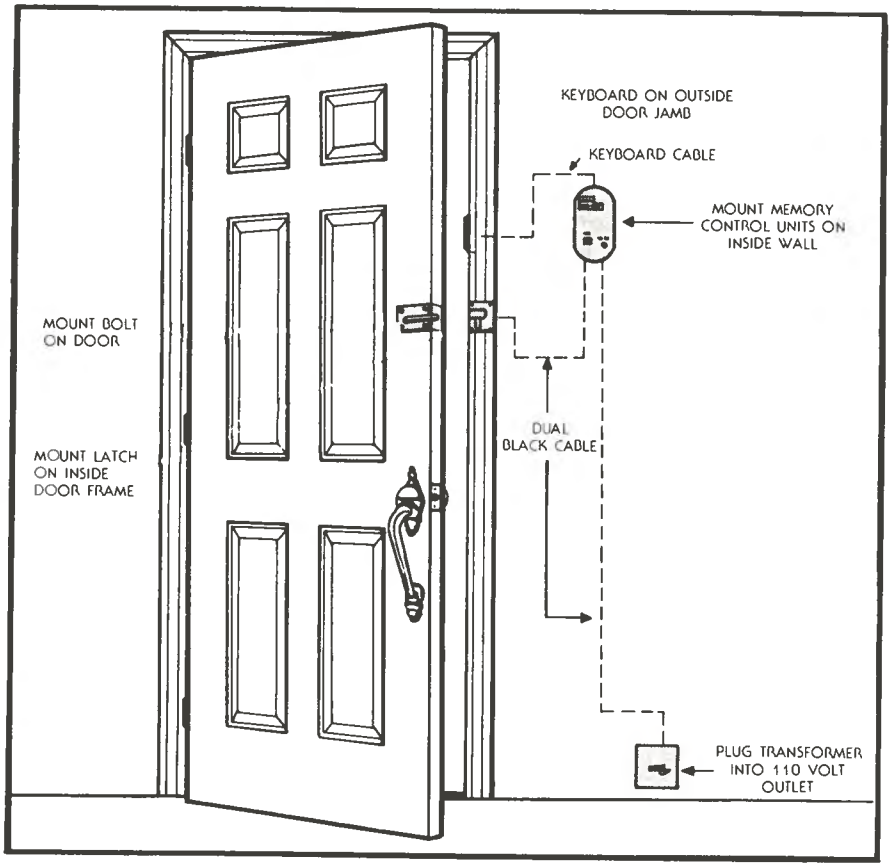
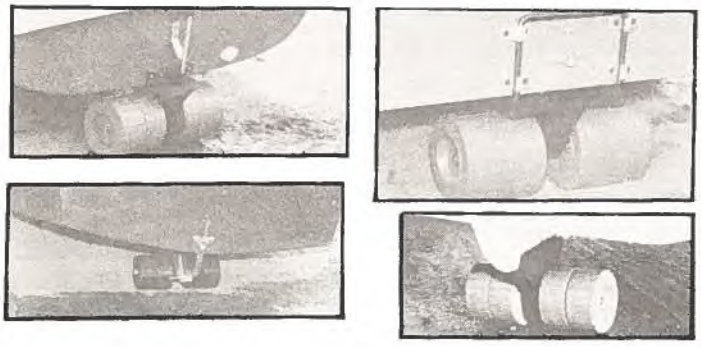


Centriheat (See page 41)
Centriheat ▼
(Voir page 41)



▲
Launching Trolley
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Chariot de mise à l'eau
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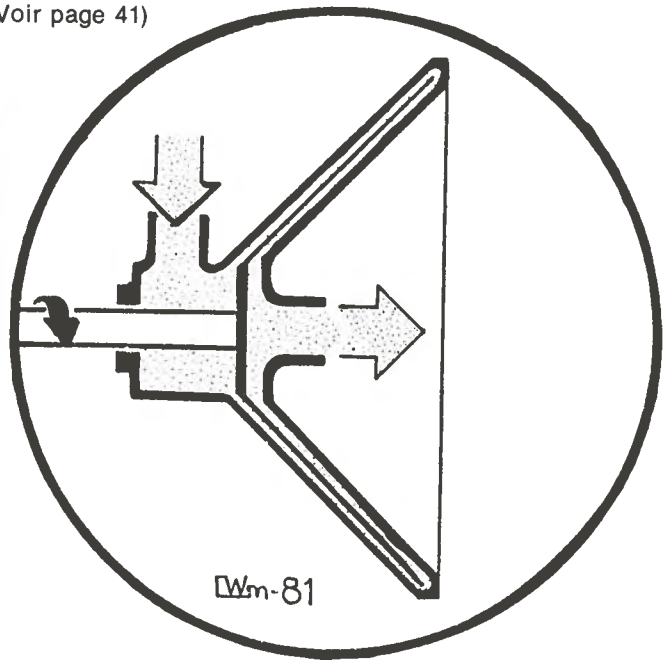

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