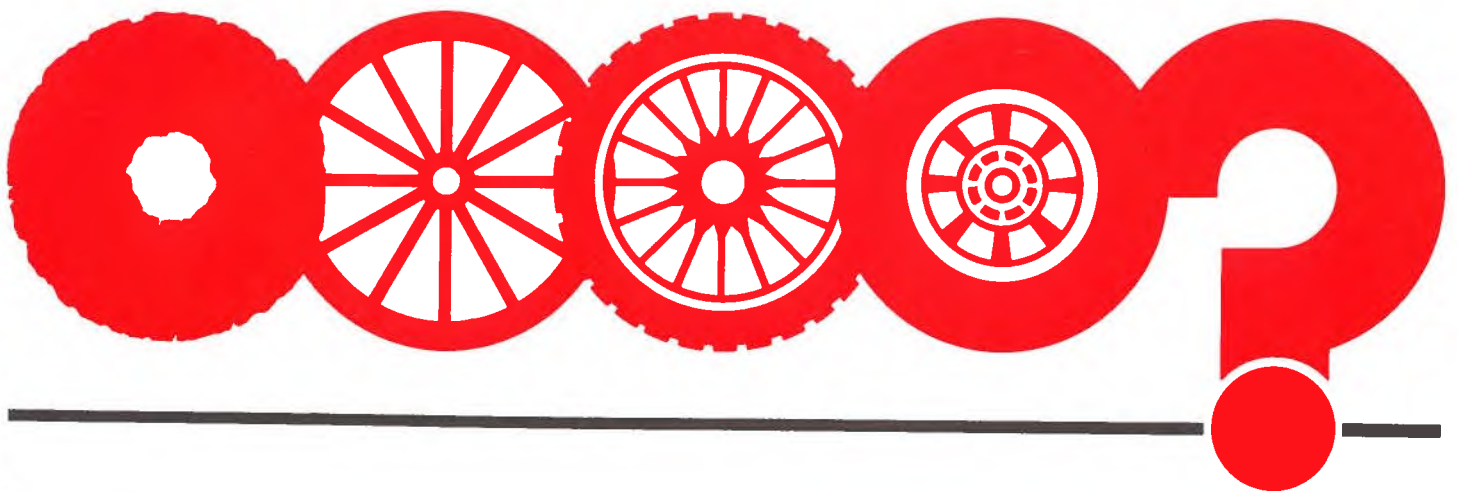


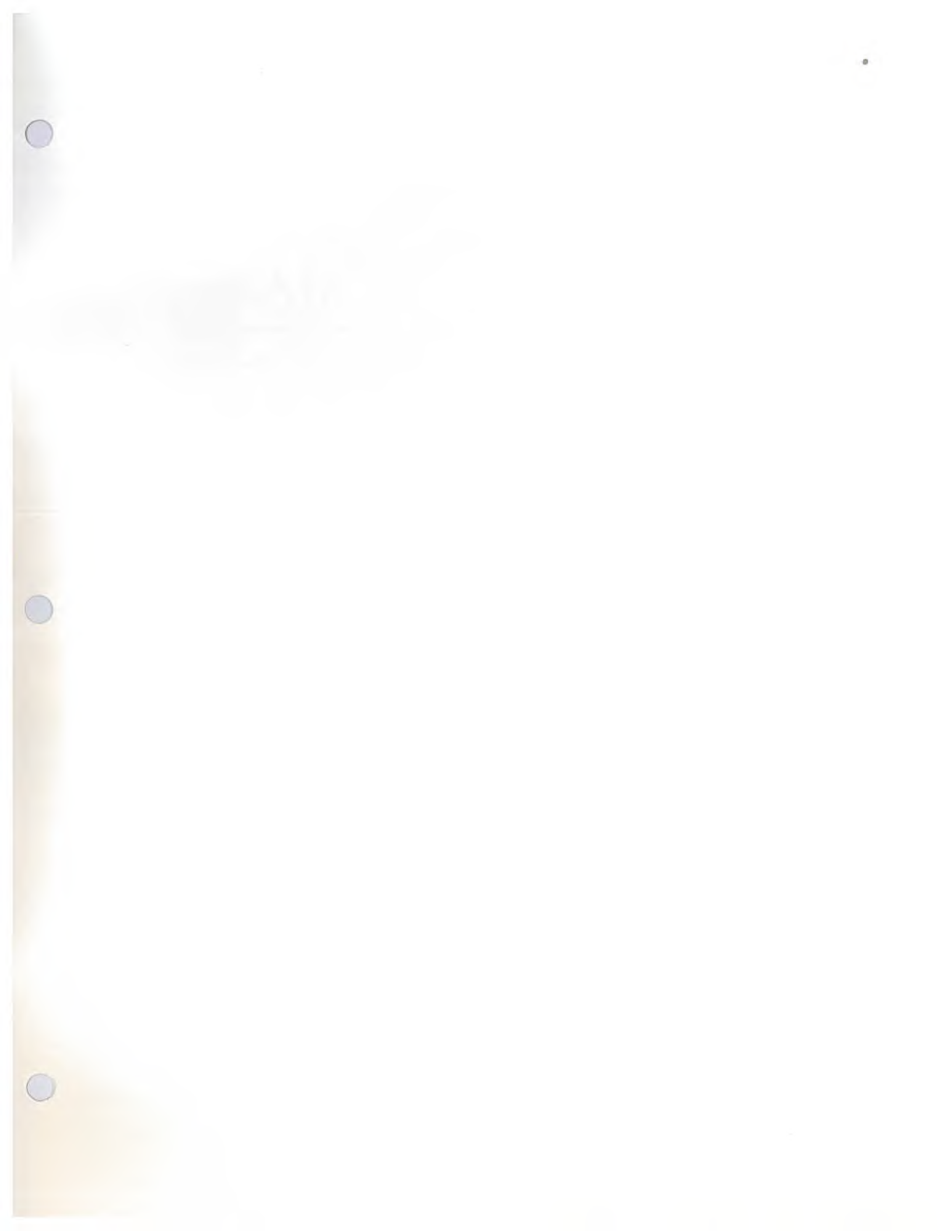
new products bulletin

Bulletin 296, September 1980

bulletin de produits nouveaux

Bulletin 296, Septembre 1980





new products bulletin

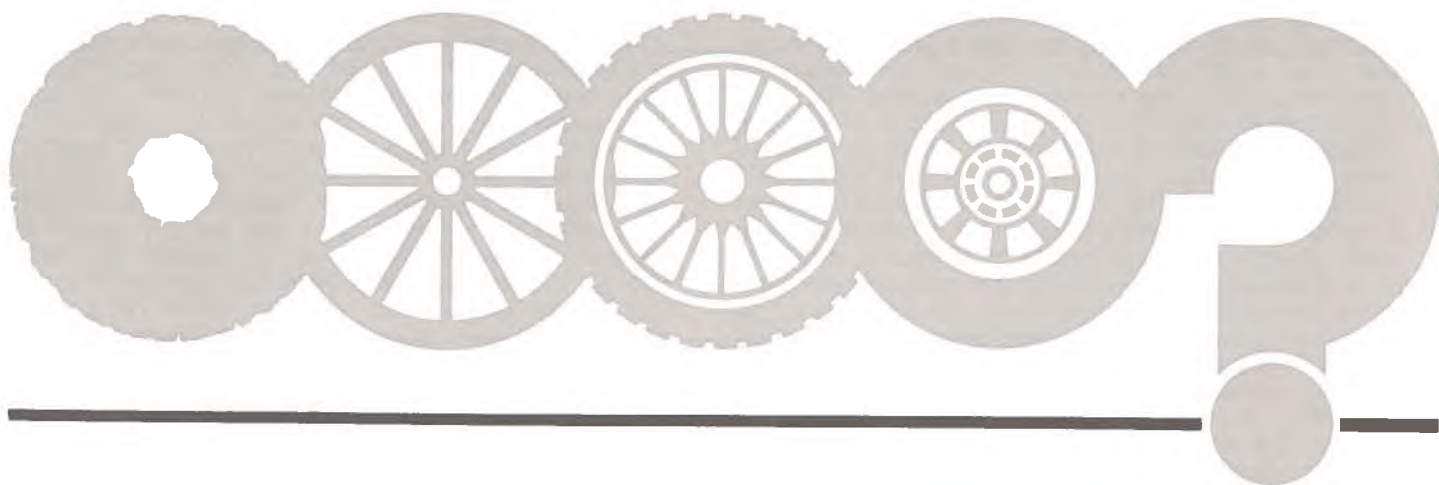
bulletin de produits nouveaux

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

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

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

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



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Selected Licensing or Joint Venture Manufacturing Opportunities

Treatment of Herpes Infections/296

A method and product which have shown a pronounced antiviral capability in animal tests. Immunostimulant properties and ways of enhancing the antiviral effect have also been observed. Write: Case 6330, 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, Canada K1A 0H5.

Photo-Induced Refractive Index Changes in Optical Fibers/296

The optical reflective filter is made from germanium doped optical fiber. Refractive index changes are induced in the fiber by a light source such as a laser thereby creating a distributed feedback reflection filter in one or more bands. Write: Case 6976, 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, Canada K1A 0H5.

Zinc Alloy Castings/296

Canadian manufacturer offers territorial trade secret manufacturing licenses in Canada with unrestricted marketing and export rights for the production of zinc alloy castings using the Rant graphite mold and gravity casting process. The alloy replaces aluminum, copper brass, bronze and grey iron and produces castings comparable in quality to pressure die castings without the high cost of tooling, set up and long write off. The process is non-toxic, the material used is inert, there are no pollution effects and very economical short run production of between 10 and 30 thousand castings is possible. Licensor's production in Canada is by Fantom Manufacturing, Thorold, Ontario with current sales of over \$300,000 and licensees in Markham, Kitchener and Stoney Creek, Ontario. Two licensees are producing in South Carolina, one in Ohio, New Hampshire, California, Sweden (master license for Scandinavia), UK (master license) and other countries are being negotiated. The license includes technology and know-how; the supply of casting equipment designed and built by Rant Process Inc. which includes: Rant melting furnace, 14" Rancaster portable mold machine, 20" Rancaster portable mold machine, manual/semi automatic time control system interchangeable on 14" and 20" Rancaster machines; and a complete in-plant two-week training period on design, manufacture, costing of graphite molds and their use, marketing information, general information and instructions on the alloy, its benefits and substitution. Total

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

Traitement de l'herpès/296

Méthode et produit qui ont fait preuve d'un pouvoir antiviral marqué lors d'essais sur des animaux. Des propriétés immunostimulantes et des moyens d'augmenter l'effet antiviral ont aussi été découverts. Écrire: Cas 6330, 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 (Canada) K1A 0H5.

Variations photo-induites de l'indice de réfraction des fibres optiques/296

Le filtre optique réfléchissant est fait d'une fibre optique dopée de germanium. Les variations de l'indice de réfraction sont induites dans la fibre par une source lumineuse telle qu'un laser, produisant ainsi un filtre réfléchissant dont la réponse est répartie sur une ou plusieurs bandes. Écrire: Cas 6976, 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 (Canada) K1A 0H5.

Pièces en alliage de zinc/296

Un fabricant canadien offre des licences territoriales de production au Canada, grâce à un secret de fabrication, avec droits illimités de mise en marché et d'exportation; les détenteurs de ces licences pourront couler des pièces en alliage de zinc au moyen du procédé Rant qui fait appel à des moules en graphite et prévoit une coulée sans pression. L'alliage remplace l'aluminium, le laiton, le bronze et la fonte grise et permet d'obtenir des pièces dont la qualité peut se comparer à celle des pièces coulées sous pression et ce, sans avoir à assumer les coûts élevés d'usinage, d'installation et d'amortissement à long terme. Le procédé n'est pas intoxicant, le matériau est inerte, la pollution inexistante, et il est possible de produire de façon très économique un faible volume de 10 à 30 mille pièces coulées. L'octroyeur de licence au Canada est Fantom Manufacturing, Thorold (Ontario) dont le dernier chiffre d'affaires dépasse \$300 000, et il y a des détenteurs de licence à Markham, Kitchener et Stoney Creek, en Ontario. Deux détenteurs de licence sont établis en Caroline du Sud, un en Ohio, un au New Hampshire, un en Californie, un en Suède (licence principale pour la Scandinavie), un au Royaume-Uni (licence principale), alors que des pourparlers sont en cours pour d'autres pays. La licence comprend la technique et le savoir-faire; la fourniture du matériel de coulée conçu et fabriqué par Rant Process Inc., dont un four de fusion Rant, une machine à mouler portative Rancaster de 14 pouces, une machine à mouler portative

cost for license agreement, operating manual and machinery is \$31,626.00 with a 5% royalty on invoiced sales of component castings and molds. (See illustrations page 45) Write: Mr. Lou Eckebrecht, Lomar Trading Co. Ltd., 1384 Tyandaga Park Drive, Burlington, Ontario, L7P 1N3 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.

“MIGI” Automobile Body Kit/296

U.S. manufacturer of fibre glass replica style sports car auto body to be mounted on VW chassis offers sale of exclusive Canadian manufacturing rights to interested party. Product may be marketed as an unassembled kit, a deluxe assembled body or as a completed car. Presently a distribution network covers the U.S. only. Canadian participant would purchase moulds etc. from original plant and would be urged to set up a distribution system in Canada. Further marketing rights are negotiable. Experience with fibre glass production methods is recommended. Technical data, assistance and a mailing list of several hundred Canadian citizens that have requested additional information will be supplied. (See illustration page 45). Write: Daytona Automotive Fiberglass, Inc., 852-910 Carswell Avenue, Holly Hill, Florida 32017 and send a copy of your initial correspondence to: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Marine Propeller/296

New Zealand company offers licensing rights or a joint venture partnership to a Canadian firm to manufacture, for the North America market and possibly other areas, the “Church” propeller. This is a lifting propeller based on wing type blades with a hydrodynamic ring fixed to the blades. The propeller has proven efficiency in thrust and uses less fuel to do the same work as the conventional B3.65 series marine propeller. It has application for outboards through to fishing and commercial shipping operations; a very low noise factor; neutral torque effect and is less prone to grounding damage and fouling warps and ropes etc. It can be manufactured from all conventional marine propeller metals including bronze, stainless steel, aluminium alloys and is most suitable for diecasting in alloys and polycarbonates. The licensee would be supplied with complete technical specifications, drawings, technical assistance to all stages, existing know how and the benefits of continuing developments. Write: Propeller Design Limited, P.O. Box 14-129, Panmure, Auckland, 6.,

Rancaster de 20 pouces, une minuterie polyvalente à commande manuelle ou semi-automatique que l'on peut monter indifféremment sur les deux machines Rancaster de 14 et de 20 pouces; ainsi qu'un stage de formation en usine de deux semaines visant la conception, la fabrication, l'établissement du prix de revient et les diverses utilisations des moules en graphite, la technique de commercialisation, des informations générales et une étude sur l'alliage, ses avantages et les matériaux qu'il peut remplacer. Le coût total de la licence (entente, manuel d'exploitation et équipement) est de \$31 626 avec une redevance de 5% sur les ventes facturées de pièces moulées et de moules. (Voir les illustrations page 45). Écrire à: M. Lou Eckebrecht, Lomar Trading Co. Ltd., 1384 Tyandaga Park Drive, Burlington (Ontario), L7P 1N3 et envoyer une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, Ministère de l'Industrie et Commerce, Ottawa (Ontario), K1A 0H5.

Kit automobile “MIGI”/296

Un fabricant américain de répliques de carrosseries de voitures sport en fibres de verre, à monter sur un chassis Volkswagen, offre à toute partie intéressée les droits exclusifs de fabrication pour le Canada. Le produit en question peut être vendu comme kit en pièces détachées, en carrosserie assemblée de luxe ou faisant partie d'une voiture assemblée. Présentement, seuls les États-Unis sont desservis par un réseau de distribution. Le partenaire canadien devrait acheter de l'usine-mère les moules et tout le matériel connexe et il serait pressé de mettre sur pied un réseau de distribution pour le Canada. Il est possible de négocier la concession de droits de commercialisation plus étendus. La connaissance des procédés de fabrication à partir des fibres de verre est recommandée. On fournira toutes les données et toute l'assistance technique nécessaires ainsi qu'une liste d'envois de plusieurs centaines de Canadiens qui se sont informés du produit auprès du fabricant. (Voir l'illustration page 45). Écrire à: Daytona Automotive Fiberglass, Inc., 852-910 Carswell Avenue, Holly Hill, Florida 32017 et faire parvenir une copie de votre correspondance initiale au Consulat général canadien, 900 Coastal States Building, 260 Peachtree Street, Atlanta Georgia 30303.

Hélice marine/296

Une société néo-zélandaise offre à toute société canadienne les droits de fabrication de l'hélice “Church” sous licence ou en coparticipation pour le marché nord-américain, et éventuellement pour d'autres marchés. Il s'agit d'une hélice propulsive à pales en forme d'aile équipées d'une couronne hydrodynamique, qui possède des caractéristiques de poussée déjà éprouvées. Pour un même travail donné, elle permet une consommation de carburant inférieure à celle de l'hélice marine classique de la série B3.65. Elle peut être utilisée sur les hors-bord affectés à la pêche ou à la navigation commerciale. En outre, l'hélice “Church” possède un très faible facteur de bruit, un effet de couple nul et est moins susceptible d'être endommagée par échouage ou d'emmêler câbles et grelins. Tous les métaux habituellement compris dans la fabrication des hélices marines, soit le bronze, l'acier inoxydable et les alliages d'aluminium, peuvent servir à la fabrication de l'hélice “Church” qui, d'ailleurs, se prête bien au moulage d'alliages et de polycarbonates. Le titulaire de la licence

New Zealand and send a copy of your initial correspondence to: Commercial Division, Canadian High Commission, P.O. Box 12-049 Wellington North, ICI Building, 3rd Floor, Molesworth Street, Wellington, New Zealand.

New Method of Manufacture of Electric Motors and Generators/296

Australian company seeks a licensing or joint venture arrangement with a Canadian company for the manufacture in Canada of the "Stanley Crinkle Motor" concept. Patents have been applied for in Canada, Australia and twenty-two major industrialized countries. Marketing rights to areas of interest are open to negotiation. The invention incorporates a completely new method of manufacture whereby stators and rotors are produced by the continuous forming of prepunched metal strips to the finished shape of the stator or rotor. The required circular shape of the metal strip is achieved by crinkling the coils with one another (rather like pieces of corrugated iron placed one on top of the other). This new method eliminates the need for stamping of laminations, results in greatly reduced tooling and production costs, reduces waste in product, and produces lighter weight more efficient motors. The owner of the invention claims that its soundness has been established beyond doubt. A demonstration can be arranged in Sydney. Write: Mr. L. Stanley, Managing Director, Crinkle Motor Company Pty. Ltd., C/-23 Lawrence Street, Harbord, New South Wales, Australia 2096 and send a copy of your initial correspondence to Canadian Consulate General, A.M.P. Centre, 8th Floor, 50 Bridge Street, Sydney, N.S.W. 2000, Australia.

Power Plant/296 Lifting Device/296 Compressed Air Pump/296 Pneumatic Pump/296

Swedish inventor offers the Canadian manufacturing and world-wide marketing rights under license to the following inventions:

- 1) a power plant for the exploitation of the water flow in brooks and similar small water courses having minor level differences between the water inlet and the water outlet of the power plant characterized by two long tanks each having their inlet and outlet for water and arranged so that the alternate verticle swinging of the tanks fills and empties the water. The tanks are coupled to a device for receiving the energy which is generated by the alternate pivoting of the tanks.
- 2) a lifting device with two liquid reservoirs which, by means of valves are alternatively connected to a vacuum pump and the atmosphere. The vacuum pump which is driven by a wind power plant, provides a negative pressure in one of the reservoirs depending on which position the four-way valve takes. Owing to the negative

recevra toutes les données et tous les plans pertinents ainsi que l'assistance et la compétence techniques nécessaires à tous les niveaux en plus de bénéficier des recherches constantes effectuées dans le domaine. Écrire à: Propeller Design Limited, P.O. Box 14-129, Panmure, Auckland, 6, New Zealand et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Haut-commissariat du Canada, P.O. Box 12-049 Wellington North, ICI Building, 3rd floor, Molesworth Street, Wellington, New Zealand.

Nouvelle méthode de fabrication de moteurs et de génératrices électriques/296

Une compagnie australienne voudrait s'associer à une compagnie canadienne pour partager les droits sur les "moteurs gaufrés Stanley" ou les fabriquer au Canada. Les brevets sont en instance au Canada, en Australie et dans vingt-deux importants pays industrialisés. Il est possible de négocier les droits de mise en marché pour les endroits prometteurs. L'invention traite d'une méthode révolutionnaire de fabrication des stators et des rotors: des bandes métalliques préfaçonnées sont embouties pour prendre la forme voulue. La forme circulaire des bandes métalliques s'obtient comme suit: les enroulements sont gaufrés et placés les uns sur les autres (un peu comme on empile des feuilles d'acier ondulées). Cette méthode élimine l'étampage des lamelles, réduit de beaucoup les coûts d'outillage et de production ainsi que les pertes et permet d'obtenir des moteurs plus efficaces et plus légers. L'inventeur indique qu'il a été prouvé que la méthode est au point. Il est en mesure de la présenter à Sydney. Écrire à: Mr. L. Stanley, Managing Director, Crinkle Motor Company Pty. Ltd., C/-23 Lawrence Street, Harbord, New South Wales, Australie 2096 et faire parvenir une copie de votre correspondance initiale au Canadian Consulate General, A.M.P. Centre, 8th Floor, 50 Bridge Street, Sydney, N.S.W. 2000, Australie.

Groupe électrogène/296 Dispositif de levage/296 Pompe pneumatique/296 Pompe à vide/296

Un inventeur suédois offre les droits de fabrication au Canada et de mise en marché partout dans le monde en vertu des licences relatives aux inventions suivantes:

- 1) Un groupe électrogène pouvant être exploité dans les ruisseaux et autres petits cours d'eau dont la dénivellation est minime entre l'amont et l'aval du groupe. Le groupe comprend deux longs réservoirs dont chacun possède une entrée et une sortie d'eau et qui sont disposés de telle sorte qu'ils puissent pivoter verticalement, à tour de rôle, pour se remplir et se vider. Les réservoirs sont reliés à un dispositif de conversion de l'énergie produite par le pivotement des réservoirs.
- 2) Un dispositif de levage muni de deux réservoirs de liquide raccordés tour à tour au moyen de soupapes à une pompe à vide et à l'air libre. La pompe à vide, entraînée par une éolienne, produit une dépression dans un des réservoirs selon la position que prend le robinet à quatre voies. Étant donné la dépression dans un des réservoirs,

pressure in one of the reservoirs the diaphragm of a control means is held in an inwards curved position until the water flowing in through the conduit by way of the nonreturn valve has reached the float valve, which then closes. A strong negative pressure is at the same time achieved in the valve which then opens, at which the pressure in the reservoir will be equalized, which means that the diaphragm is bulged by the pressure from the water and the valve is switched over at the same time as the diaphragm is curved inwards. When the valve is switched over the second reservoir is connected to the vacuum pump, which then is filled with water.

3) a compressed air pump for liquids comprising a double acting compressor which is connected to a four-way valve with its suction side as well as with its pressure side, conduits being arranged from the four-way valve to a reservoir placed in a deep water well. During the suction phase the suction side of the compressor is connected to the reservoir, in which a negative pressure is provided so that water is sucked in through the nonreturn valve. When the water has reached the float valve this is closed and there will be a strong negative pressure in the conduit, at which the diaphragm in the pressure cell switches over the four-way valve, so that the pressure side of the compressor is connected to the conduit. The pressure phase is then started and compressed air is pressed into the reservoir, at which the water present therein is pressed out through the conduit past the nonreturn valve. The pressure period and the capacity of the pump is determined by a throttle valve which regulated the return movement of the diaphragm for the next switching of the four-way valve at which the suction phase is started.

4) a pneumatic pump unit for lifting e.g. water from deep wells by means of a vacuum pump. For lifting relatively large liquid volumes with a low energy consumption there are provided a number of tanks connected in series in a well, said tanks being provided with an inlet in the bottom and a conduit extending from the respective inlet to the bottom portion of the tank located just below. In the upper end of each tank there is arranged a one-way valve controlled by a floating body, said valve closes when the tank is substantially filled with liquid and is, by way of a conduit, connectable to a suction means. Control means are provided which successively connects the tanks to the suction means in turn starting with the lowest located tank. Write: Mr. Amnon Cohen, GT Svets o Montage H/B, Box 86, S-664 00 Grums, Sweden and send a copy of your initial correspondence to: Commercial Division, Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm 16, Sweden.

Blood Purifiers/296

Japanese industrial technology association offers a Canadian company the manufacturing and marketing rights for new blood purifiers made by direct hemoperfusion. This method, with the aid of activated charcoal and other adsorbents, is expected to be applicable for auxiliary artificial kidneys and hepatic assist systems. Two model devices have been developed: Dehydration Type Hemoperfusion Equipment and a New Plazma Perfusion Device. The dehydration type hemoperfusion equipment is a variation of

la membrane d'une dispositif de commande est maintenue en position incurvée vers l'intérieur jusqu'à ce que l'eau qui passe dans le tuyau, via une soupape antiretour atteigne la soupape à flotteur et que cette dernière se ferme. Une forte dépression se produit alors dans le robinet qui s'ouvre et équilibre la pression dans le réservoir. La membrane est déformée par la pression de l'eau et le robinet est actionné aussitôt que la membrane est déformée vers l'intérieur. Quand le robinet est actionné, le second réservoir est raccordé à la pompe à vide qui se remplit d'eau.

3) Une pompe pneumatique à liquide qui comporte un compresseur à double effet raccordé à un robinet à quatre voies et dont les tuyaux d'aspiration et de refoulement partent du robinet à quatre voies pour se terminer dans un puits d'eau profond. Pendant la phase d'aspiration, le tuyau d'aspiration du compresseur est raccordé au réservoir dans lequel une dépression fait passer l'eau dans la soupape antiretour. Quand le niveau de l'eau atteint la soupape à flotteur, cette dernière se ferme et il se produit une forte dépression dans le tuyau. À ce moment, la membrane de l'élément pneumatique actionne le robinet à quatre voies de façon à raccorder le côté refoulement du compresseur au tuyau. La phase de compression est amorcée, l'air est refoulé dans le réservoir et l'eau est repoussée dans le tuyau, au-delà de la soupape antiretour. Le temps de compression et la capacité de la pompe sont réglés par une soupape d'étranglement qui régularise le retour de la membrane qui actionne de nouveau le robinet à quatre voies pour amorcer la phase d'aspiration.

4) Un dispositif de pompage de liquide pour puits profonds au moyen d'une pompe à vide. Pour élever un volume relativement grand de liquide tout en ne consommant qu'une faible quantité d'énergie, un certain nombre de réservoirs sont reliés en série dans le puits. Ces réservoirs comportent une entrée par le fond et un tuyau est raccordé entre l'entrée de chaque réservoir et le fond du réservoir immédiatement en dessous. À l'extrémité supérieure de chaque réservoir, il y a une soupape antiretour à flotteur qui se ferme quand le réservoir est plein. Chaque réservoir peut être relié à un dispositif d'aspiration. Le dispositif de commande relie tour à tour les réservoirs au dispositif d'aspiration en commençant par le réservoir le plus bas. Écrire à M. Amnon Cohen, GT Svets o Montage H/B, boîte postale 86, S-664 00 Grums, Suède et faire parvenir une copie de votre correspondance initiale à: Commercial Division, Embassade du Canada, boîte postale 16129, S-103 23 Stockholm 16, Suède.

Purificateurs sanguins/296

La Japan Industrial Technology Association offre à une compagnie canadienne les droits de fabrication et de commercialisation de nouveaux purificateurs sanguins fonctionnant par hémoperfusion directe. Ce procédé utilise du charbon activé et un autre adsorbant; il peut prévoir-on, s'appliquer à des reins artificiels auxiliaires et à des stimulateurs hépatiques. Deux modèles ont été mis au point: l'appareil d'hémoperfusion par déshydratation et un nouveau dispositif de perfusion plasmatique. Le premier est

direct hemoperfusion with the use of a newly invented osmotic dehydration device. In this device, the blood channels and the solution chambers containing a small amount of concentrated solution are partitioned by insertion of semi-permeable membranes. Water removal from the blood stream in the channels is carried out by the osmotic suction through the semi-permeable membranes into the solution chambers. Acetyl cellulose membranes with high acetyl content are prepared especially for this device. When 3 mol/l of calcium chloride solution is used, the membrane needs only quarter the area of usual hemodialysis membranes. Either before or after dehydration, the blood is sent through an adsorbent packed container to be purified. Otherwise, the adsorbent container and the dehydration device can be combined in a single vessel. The new plasma perfusion device comprises a packed bed of adsorbent and narrow blood channels with porous walls which are set through the bed. When blood flows in the channel, the plasma permeates the bed through the channel walls in the upper reaches and comes into contact with the adsorbent. Blood cells continue to flow through the channel. In the lower reaches, the plasma in the bed gradually returns into the channel, while the dust from the adsorbent is arrested by the channel walls. Testing modules are constructed utilizing micro-porous polymeric membrane filters for the channel walls. In-vivo tests on canine bodies are proving efficiency and biocompatibility. Write: Japan Industrial Technology Association, 20 Mori Building 8F, 2-7-4 Nish Shinbashi, Minato-ku, Tokyo 105, Japan and send a copy of your initial correspondence to: Commercial Division, Embassy of Canada, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japan.

Challenge to a Clearance — A Simultaneous Plating Process for Accurately Fitted-Bodies with CVD/296

Japan industrial technology association offers a licence for a new process developed at the Mechanical Engineering Laboratory, Tokyo, for providing very close tolerances in fitted bodies, through in-process control of film thickness via chemical vapor deposition (CVD). The method consists of fitting a mating pair of bodies together in a CVD chamber, and carrying out ceramic CVD coating while turning one of the pair and giving it small axial displacement or vibration. The coating process ceases when detected torque or vibration amplitude reaches a pre-determined value, indicating desired fitting accuracy. The process also minimizes surface roughness. Examples or applications are sliding bearings (e.g., for tape-recorders), pumps, nozzles, crankshafts. Write: Japan Industrial Technology Association, 20 Mori Building 8F, 2-7-4 Nishi Shinbashi, Minato-ku, Tokyo 105, Japan and send a copy of your initial correspondence to Commercial Division, Embassy of Canada, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japan.

Rebar Locator/296

American inventor offers licensing rights to a Canadian company to manufacture, market, export and sub-license internationally, a locator for verticle reinforcing bars in masonry. It locates steel at precise "d" as specified by

une variante de l'appareil par hémoperfusion directe et utilise un nouveau système de déshydratation osmotique. Un tel système comporte des tubes et des compartiments de solution renfermant une petite quantité de solution concentrée, divisés par des membranes semi-perméables. L'eau est éliminée de la circulation sanguine par succion osmotique à travers les membranes semi-perméables, puis est récupérée dans le compartiment renfermant la solution. Des membranes d'acétyl-cellulose riches en groupements acétyles sont spécialement conçues pour un tel dispositif. Lorsqu'on utilise une solution de chlorure de calcium à 3 mol/L, la superficie nécessaire n'est que d'un quart de la superficie des membranes d'hémodialyse. Soit avant soit après la déshydratation, le sang est purifié par passage dans un réservoir garni d'un adsorbant. On peut également combiner le réservoir adsorbant et le dispositif de déshydratation. Le nouveau dispositif de perfusion plasmatique comporte un adsorbant traversé par des tubes étroits à parois poreuses. Lorsque le sang s'écoule dans les tubes, le plasma traverse les parois et entre en contact avec l'adsorbant. Le sang continue à s'écouler à travers les tubes. À la partie inférieure, le plasma retourne progressivement dans les tubes, tandis que les parois empêchent la pénétration d'impuretés provenant de l'adsorbant. On construit des dispositifs d'essai utilisant des filtres constitués de membranes polymériques à micro-pores comme matériaux pour les tubes. Des essais *in vivo* effectués sur des chiens ont démontré l'efficacité et la biocompatibilité de ce système. Pour plus de renseignements écrire à: Japan Industrial Technology Association, 20 Mori Building, 8F, 2-7-4 Nish Shinbashi, Minato-ku, Tokyo 105, Japon et envoyer une copie de votre correspondance initiale à la: Division commerciale, Ambassade du Canada, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japon.

Procédé de placage simultané pour objets ajustés avec précision par DVC/296

La Japan Industrial Technology Association offre les droits d'un nouveau procédé mis au point au Laboratoire de génie mécanique de Tokyo. Ce procédé permet d'ajuster des objets selon des tolérances serrées grâce au contrôle de l'épaisseur du feuillet par dépôt de vapeurs chimiques (DVC). Une paire d'objets à ajuster sont placés l'un contre l'autre dans une chambre de DVC. La déposition se fait pendant que l'un des objets tourne en subissant de légères vibrations axiales. Le phénomène est interrompu quand le couple ou l'amplitude des vibrations atteint une valeur pré-déterminée correspondant à l'ajustement voulu. Cette méthode minimise en outre la rugosité des surfaces. Elle s'applique entre autres à des roulements coulissants (de magnétophone, par exemple), des pompes, des buses, des vilebrequins. Écrire à: Japan Industrial Technology Association, 20 Mori Building 8F, 2-7-4 Nishi Shinbashi, Minato-ku, Tokyo 105, Japon, et faire parvenir une copie de votre correspondance initiale à l'Ambassade du Canada, Division commerciale, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japon.

Positionneur de barres d'armature/296

Un inventeur américain offre à une compagnie canadienne les droits de fabrication, de commercialisation, d'exportation et de sous-licence à l'échelle internationale, d'un positionneur de barres d'armature verticales dans la maçonnerie.

the engineer, locates vertical steel precisely on center that engineer specifies and acts as joint reinforcement. The primary object of the invention provides means for positively locating vertical reinforcing bars at the precise position called for in the specifications, thereby assuring the design engineer that the bar will remain at its intended location at all times and that its full tensile strength will be utilized. This object is achieved by means of continuous, ladder-like assemblies that are placed in the horizontal mortar joints of the wall at specified levels as the wall is built, the said assembly being formed of two laterally spaced steel wires that are joined together at intervals by transverse wires, having downwardly projecting locator pins that engage the blocks to position the assembly in the desired location, while certain of the transverse wires have circular rings formed therein, through which the vertical reinforcing bars are passed. U.S. patent number 4,190,999 has issued and a patent has been applied for in Canada and several other highly industrialized or high seismic countries. It is claimed that favourable responses have been received concerning this invention from the Technical Committee of the Concrete Masonry Association, The Director of Engineering for the Masonry Institute of America, Chief Building Inspectors from the San Bernardino County Building Department and the Riverside Building Department in the United States and that a locator placed in a masonry wall did not slow down work significantly in view of the positive results. Consideration will be given to companies making best offer with consideration given to size and potential sales including rights of first refusal to match offers received from other countries. Samples are available. Write: Ralph C. Hampton, BS (Arch), 18881 Gentian Avenue, Riverside, California 92504 and send a copy of your initial correspondence to: Canadian Consulate General, Commercial Division, 510 West Sixth Street, Los Angeles, California 90014.

rie. Le positionneur maintient l'acier en place à l'endroit exact spécifié par l'ingénieur, et sert à renforcer les joints. L'objectif premier de cette invention est de fournir un moyen de positionner les barres d'armature en se conformant exactement aux spécifications, de façon que l'ingénieur soit certain que les barres seront maintenues à la position prévue en permanence et que la totalité de leur résistance à la traction sera mobilisée. Cet objectif est réalisé au moyen de sortes d'échelles continues qui sont mises en place dans les joints horizontaux du mortier à diverses hauteurs prescrites, au fur et à mesure de la construction du mur. Le système se compose de deux tiges d'acier parallèles réunies à des intervalles réguliers par des tiges transversales qui comportent des projections verticales qui s'engagent dans les blocs et maintiennent tout le système en position. D'autres tiges transversales ont un anneau dans lequel on fait passer la barre d'armature. Le système a été breveté aux États-Unis, et une demande de brevet a été enregistrée au Canada et dans plusieurs autres pays hautement industrialisés ou à sismicité élevée. Cette invention semble avoir reçu une réponse favorable du Comité technique de la Concrete Masonry Association, du Director of Engineering for the Masonry Institute of America, des inspecteurs en chef de la construction du comté de San Bernardino et du Riverside Building Department aux États-Unis. Un positionneur de barres placé dans un mur de maçonnerie n'a pas ralenti le travail de façon significative tout en donnant des résultats positifs. On étudiera les propositions des compagnies qui font les meilleures offres tout en tenant compte de l'importance et du potentiel des ventes, et en réservant un droit de refus au cas où une offre provenant d'un autre pays serait retenu. On peut obtenir des échantillons. Écrire à: Ralph C. Hampton, BS (Arch), 18881 Gentian Avenue, Riverside, California 92504 et envoyer une copie de votre correspondance initiale au Consulat général du Canada, Division commerciale, 510 West Sixth Street, Los Angeles, California 90014.

Surgical Sponge/296

American inventor offers a Canadian company the manufacturing and worldwide marketing rights to a method of constructing a surgical sponge containing magnetized particles on which a U.S. patent is pending. The particles are powerful rare earth oxides or refined alloys from the rare earth oxides and are permanent magnets having short pole distance. These magnetic materials with high energy and extremely high coercivities such as SmCo_5 and PtCo , collectively designated as RECo_5 , used in surgical sponges following surgery, distinguish the method of detection from prior art and overcome the deficiencies in radio opaque, radio active and metal detection systems of the prior art. A sponge is provided with a flexible magnetized thread constructed of plastic material and/or glass fibre which has imbedded in it a plurality of rare earth oxides or refined alloys based on rare earth oxides. Alternatively the thread may be provided with an internal or external layer of magnetized material. To locate surgical instruments, they may also be provided with a small amount of magnetized material. Prior to closing after an operation, the surgeon conducts a probe of the cavity by a magnetic detection means employing magnetodiodes which generates an electric signal modified in the form of an audible, visual or other like display if objects are left within the patient. The magnetodiode responds only to the presence of a magnet

Gaze chirurgicale/296

Un inventeur américain offre à une société canadienne les droits de fabrication et de commercialisation dans le monde d'une gaze chirurgicale contenant des particules magnétisées qui sera bientôt brevetée aux États-Unis. Les particules sont constituées d'oxydes terreux rares et puissants ou d'alliages affinés à base d'oxydes terreux rares et sont des aimants permanents dont les pôles sont séparés par une faible distance. Ces substances magnétiques de grande intensité et extrêmement coercitives, comme le SmCo_5 et PtCo , portant tous les deux la désignation de RECo_5 , et utilisées dans les gazes chirurgicales à la suite d'une intervention chirurgicale, constituent une nouvelle méthode de détection et éliminent les difficultés que posent les anciens systèmes de détection des matières radio-opaques, radioactives et métalliques. La gaze comporte un fil souple aimanté constitué de plastique ou de fibre de verre renfermant plusieurs oxydes terreux rares ou des alliages affinés à base d'oxydes terreux rares. Ou encore, le fil de la gaze peut présenter une couche interne ou externe d'une substance aimantée. De plus, les instruments chirurgicaux peuvent contenir une faible quantité d'une substance magnétisée afin de faciliter leur localisation. Avant de fermer à la suite d'une intervention chirurgicale, le chirurgien sonde la cavité par détection magnétique à l'aide de magnétodiodes qui engendrent un signal

and not to the presence of metal or magnetizable unmagnetic material. The detection system is simple, compact, portable and may be used in the operating room prior to closing thus eliminating the movement of a patient to X-ray equipment. It may also be used where X-ray equipment is not available. Other advantages of the product line — both sponges and detection system are: less magnetic material is used, reduces the possibility of introducing foreign matter into an open incision; circumvents existing patents; surgical count is simplified; there is an increase in the sensitivity of the detection device and it can be made more compact (microcircuitry). Write: Dr. Richard F. Stockel, American Chemical Consulting Corporation, 475 Rolling Hills Road, Bridgewater, New Jersey 08807 and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020.

Radar Docking Device/296

American inventor offers field of use licensing rights in Canada for a basic radar unit which enables truckers to measure their distance from a dock in inches. No transponder is required to be mounted on the dock but the dock must be reflective. The device is a microwave radar which transmits very short radar pulses rearward from the truck to the dock and back. The time interval is measured by the radar and converted into a visual distance readout in the truck's cab. The unit is already non-exclusively licensed for use in measuring the distance an air cushion train is running off the track (in thousandths of inches). In another application, a modified version provides back-up collision avoidance. Write: The Inventors Licensing and Marketing Agency, P.O. Box 251, Tarzana, California 91356 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014.

Johnson Door Dolly/296

American inventor offers the licensing rights in Canada for a dolly for moving heavy doors with ease and speed. Its features are: eliminates the need for a door bench since the dolly doubles as an ideal door jig with carpet padded boots; eliminates need to lift door; crosses over electrical cords, wires and small debris; permits one person to transport and install any size door without help; mounts steps; holds door in horizontal position while planing, routing and applying the butts; lifts door onto hinges by holding top steady; reduces labour costs and is inexpensive. (See illustration page 45). Write: The Inventors Licensing and Marketing Agency, P.O. Box 251, Tarzana, California 91356 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014.

électrique modifié sous la forme d'une indication sonore, visuelle ou autre si des objets ont été oubliés dans le patient. La magnétodiode ne réagit qu'en présence d'un aimant et non en présence d'une substance métallique ou non magnétique mais magnétisable. Le nécessaire de détection est simple, compact, portatif et peut être utilisé dans la salle d'opération avant de fermer. Il n'est donc pas nécessaire de déplacer le patient pour une radiographie. Il peut également servir là où l'on ne dispose pas de dispositif radiographique. On compte parmi d'autres avantages du produit, tant du point de vue de la gaze elle-même que du nécessaire de détection: moins de substance magnétique est utilisée, réduction de la possibilité que des corps étrangers s'infiltrer dans une incision ouverte, invention nouvelle, simplification du comptage chirurgical, sensibilité accrue du dispositif de détection et possibilité de format plus compact (microcircuits). Écrire au: Dr Richard F. Stockel, American Chemical Consulting Corporation, 475 Rolling Hills Road, Bridgewater, New Jersey 08807 et envoyer une copie de votre correspondance initiale au Consulat général du Canada, 1251 Avenue of the Americas, New York City, N.Y. 10020.

Dispositif radar pour plate-forme de chargement/296

Un inventeur américain offre des droits de licence de champ d'application, au Canada, relativement à un dispositif radar simple permettant aux camionneurs de mesurer la distance entre leur camion et la plate-forme de chargement, en pouces. Il n'y a aucun répondeur à monter sur la plate-forme de chargement, mais cette dernière doit être réfléchissante. Le dispositif est un radar micro-ondes qui émet des impulsions radar très courtes, de l'arrière du camion vers la plate-forme de chargement, cette dernière les réfléchissant vers le radar, qui mesure alors l'intervalle de temps et le convertit en une indication visuelle de distance, dans la cabine du camion. Ce dispositif fait déjà l'objet d'une licence non exclusive pour utilisation dans la mesure de la distance dont un aérotrain s'éloigne de la voie (en millièmes de pouce). Dans une autre application, une version modifiée du dispositif permet d'éviter les collisions en marche arrière. Écrire à: The Inventors Licensing and Marketing Agency, P.O. Box 251, Tarzana, California 91356 et envoyer une copie de votre correspondance initiale au Consulat général du Canada, 510 West Sixth Street, Los Angeles, California 90014.

Diable Johnson pour portes/296

Un inventeur américain offre les droits de mise en marché au Canada d'un diable conçu pour déplacer facilement et rapidement les lourdes portes. En voici les caractéristiques: Il élimine le banc pour portes, car il peut servir de support grâce à ses pièces de retenue garnies de tapis; il passe facilement sur les fils électriques, les cordes et les petits débris; une seule personne peut transporter et poser une porte; il est facile de monter ou de descendre les marches des escaliers; il maintient une porte à l'horizontale pendant qu'un menuisier la rabote, la toupille et y pose des charnières; il permet de mettre la porte en place en stabilisant le haut; il réduit les frais de main-d'oeuvre et est lui-même peu coûteux. Voir l'illustration page 45.) Écrire à: The Inventors Licensing and Marketing Agency, P.O. Box 251, Tarzana, California 91356 et faire parvenir une copie de votre correspondance initiale au Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014.

Drill Bit/296

American inventor offers the sale and licensing of his U.S. Patent 4,079,766 covering an "S" drill bit for drilling holes in wood or plastic. The bit will drill a straight smooth hole without drifting or locking up. The drill bit has a central shank having an "S" shaped cutter integrally formed on or detachably secured to the shank. A collar is detachably secured to the shank above the cutter and is keyed to the cutter to prevent rotation of the collar. A generally flat secondary cutter is secured to the collar and has a plurality of depending cutter elements on the peripheral edge thereof as well as a plurality of radially extending chisel cutters depending therefrom. Write: Beecher E. Conley, 2569 Butano Drive, Sacramento, California 95821 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.

Sleep Inhibiting Alarm/296

American inventor offers a manufacturing and North American marketing license for its sleep inhibiting alarm for drivers to a Canadian company experienced in the manufacture of micro miniature electronic components. The alarm is a device for detecting eye closure incorporated into a pair of eyeglass frames which aims a micro miniature infra red light at the eyeball. The angle of incidence of reflected beam from the eyeball is picked up by a micro miniature receiver also mounted in the frames. When the eye closes due to falling asleep, the infra red beam is broken which triggers the alarm. A delay is built into the circuitry to anticipate normal blinking of the eye. The frames do not have prescription lens unless required by the wearer. Any optometrist can install the sleep alarm. The source of power is the vehicle cigarette lighter. Write to: Max Skolnick, 19-30 Parsons Boulevard, Whitestone, N.Y. 11357 and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020.

Automatic Parking, Storage and Container Handling/296

American inventor offers the outright sale of seventeen patents, individually or as a package, covering an automatic rotary parking, storage and containers handling systems using indexed circular or oval revolving platforms, with or without turntables, ramps and/or elevators. The system permits stacking in multi level structures or towers built above or below ground and separately integrated or connected to any building. Available are: U.S.A. patents 3,378,151; 3,382,990; 3,613,909; 3,667,160; 3,672,517; 4,023,687; 4,103,787, Canadian patent numbers 942,686, 970,702 and 979,825, one Japanese patent granted but not issued, one Swiss patent 549,143 and one Israeli patent 39,722. Write: Charles R. Salloum, 120 Ellis Street, no. 307, San Francisco, California 94102 and send a copy of your initial correspondence to: Canadian Consulate General,

Foret/296

En vertu du brevet américain 4,079,766, un inventeur américain offre les droits de vente et de mise en marché d'un foret en "S" pour le perçage du bois et du plastique. Ce foret perce des trous sans dévier ni se bloquer. La tige du foret est munie d'un couteau intégré ou amovible en forme de "S". Un collier amovible fixé à la tige, au-dessus du couteau, est forcé de tourner en même temps que celui-ci. Un couteau secondaire, généralement plat, est fixé au collier. Son pourtour comporte plusieurs dents de coupeure et plusieurs dents de cisaillement interdépendantes. Écrire à: Beecher E. Conley, 2569 Butano Drive, Sacramento, California 95821 et faire parvenir une copie de votre correspondance initiale au Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111.

Alarme d'assoupissement/296

Un inventeur américain offre à une société canadienne expérimentée dans la fabrication de composants électroniques micro-miniatures une licence de fabrication et de commercialisation nord-américaine de son alarme d'assoupissement destinée aux conducteurs de véhicule. Il s'agit d'un dispositif détectant l'abaissement de la paupière et incorporé dans une monture de lunettes. Le dispositif dirige un rayon infrarouge micro-miniature sur le globe oculaire. L'angle d'incidence du rayon réfléchi par le globe oculaire est capté par un récepteur micro-miniature également fixé sur la monture. Lorsque le conducteur s'assoupit et ferme l'oeil, le rayon infrarouge est intercepté, ce qui déclenche l'alarme. Un circuit à retard incorporé au dispositif empêche les déclenchements intempestifs qui seraient provoqués par le clignotement naturel de l'oeil. Des verres de prescription peuvent être enchâssés dans la monture à la demande de l'utilisateur. N'importe quel optométriste peut fixer le dispositif sur une monture. Le briquet du véhicule sert à alimenter le dispositif. Écrire à l'adresse suivante: Max Skolnick, 19-30 Parsons Boulevard, Whitestone, N.Y. 11357 et faire parvenir une copie de votre correspondance initiale à l'adresse suivante: Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020.

Systèmes automatiques de manipulation de conteneurs, de stockage et de stationnement/296

Un inventeur américain offre de céder à forfait, globalement ou séparément, dix-sept brevets couvrant des systèmes automatiques de manipulation de conteneurs, de stockage et de stationnement de voitures; ces systèmes fonctionnent au moyen de plates-formes tournantes circulaires ou ovales indexées, couplées ou non à des tables tournantes, des rampes ou des ascenseurs. Grâce à eux, il est possible d'empiler des objets de grande taille dans des structures à plusieurs niveaux ou dans des tours en hauteur ou souterraines isolées ou rattachées à des bâtiments. L'offre porte sur les brevets américains 3 378 151; 3 382 990; 3 613 909; 3 667 160; 3 672 517; 4 023 687; 4 103 787; les brevets canadiens 942 686; 970 702; et 979 825; un brevet japonais concédé mais non délivré; le brevet suisse 549 143; et le brevet israélien 39 722. S'adres-

One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111.

ser à Charles R. Salloum, 120 Ellis Street, no. 307 San Francisco, California 94102 et envoyer une copie de votre correspondance initiale au: Consulat général canadien, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111.

Recently Issued Canadian Patents Available for Licensing or Sale

Note:

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

Patent 1,080,499

Production of Mixed Fertilizers from Crude Phosphates/296

Crude phosphate is leached with nitric acid to produce an acid slurry, which is thereafter neutralized with ammonia in two successive stages while simultaneously cooling it and adding acid, part of the crude phosphate phosphorus being replaced with phosphoric acid added to the slurry to be neutralized, and in such a manner that at maximum 40 % of the phosphoric acid is fed to the first neutralization stage

Patent 1,080,516

Alloy Steel/296

An alloy steel is provided containing, by weight percent, carbon 0.5-1.1, manganese 0.10-0.50, silicon 0.10-0.80, chromium 3.5-5.0, molybdenum 2.5-5.0, vanadium 0.5-2.0, cobalt 0.5-4.0, columbium 0.15-0.50, up to 0.10 aluminum and the balance iron except for incidental impurities. The alloy can be balanced to provide a minimum room temperature hardness of R_c 60 with outstanding toughness and

Patent 1,080,537

Wire Weed-Cutter and Staggered Toothed Harrow/296

A gardening tool mounted on 2 wheels used for both cutting weeds at the roots and cultivating the soil. In this invention a thin steel wire is stretched tightly from the ends of 2 steel pins which are mounted by set-screws in the ends of a 12" square tubing which is welded across the end of the handle to form a "T" shape. With this tool weeds are cut approximately 3 CM below the surface of the ground while pushing the implement forward. A staggered

Patent 1,080,732

Process for Producing Lead Styphnate/296

A process for producing lead styphnate, which process comprises adding of an aqueous solution of lead nitrate with stirring to an aqueous solution of magnesium styphnate, the temperature being maintained above 40°C, and the process being carried out in the presence of a suspension of fine lead styphnate crystals. The lead styphnate

Liste des brevets canadiens disponibles pour octroi de licence ou vente

Note:

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

Production d'engrais mélangés à partir de phosphates bruts/296

and the rest is fed to the second neutralization stage, whereby the acidity of the slurry is adjusted to pH 2.5 — 4.5 during the first and to pH 5.0 — 6.0 during the second neutralization stage. Write: Kemira Oy, Malminkatu 30,00 100, Helsinki 10, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, P.O. Box 779, 00101 Helsinki, Finland.

Alliage d'acier/296

ductility or to provide a minimum room temperature hardness of R_c 63 with good wear resistance. Write: Carpenter Technology Corporation 101 West Bern Street, Reading, Pennsylvania 19603, U.S.A. and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Désherbeuse à fil et herse à dents décalées/296

tooth harrow is then engaged which cultivates the soil while pulling in reverse. Write: Arthur H. Brown, 535 A Woodman Avenue S.E., Medicine Hat, Alberta T1A 3H5 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario K1A 0H5.

Production de styphnate de plomb/296

may be used as an initiating explosive in priming compositions, particularly for sports ammunition cartridges. Write: Zaklady Tworzyw Sztucznych "Nitron-Erg", Krupski Mlyn, Poland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Matejki 1/5, Srodmiestce, Warsaw, Poland.

Patent 1,080,760

Snowshoe with Hingedly Attached Harness/296

A snowshoe comprising a central, forwardly located opening for receiving the front of a wearer's foot, and at least one attachment slot located at the rear of the opening for receiving therein and detachably securing attachment means provided on a harness. The central opening has two side ribs and at least one slot is formed by a first, straight rib extending across the snowshoe and joined to the side ribs of the central opening, and a second rib spaced a short distance rearwardly from the first rib and extending parallel

Raquette de neige à harnais sur charnière/296

to it. The attachment means comprise at least one tab extending down from the harness and being inserted through the one slot. Write: Les Industries Provinciales Ltée, St-Damien, Comté de Bellechasse, Québec G0R 2Y0 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario K1A 0H5.

Patent 1,080,786

Procédé pour augmenter l'éclaircissement produit par un faisceau laser/296

Procédé pour augmenter l'éclaircissement produit par un faisceau laser sur une cible, consistant à réfléchir ce faisceau sur un miroir déformable comprenant plusieurs éléments piézo-électriques. On augmente successivement la tension de polarisation de chacun des éléments d'une tension continue prédéterminée, cette augmentation n'étant maintenue que si elle correspond à une augmentation de l'inten-

Process for Increasing the Illumination Level Produced by a Laser Beam/296

sité lumineuse diffusée par la cible. Application à la focalisation sur une antenne de l'énergie d'un faisceau laser transmettant des informations. Écrire: Compagnie Générale d'Électricité, 54, rue La Boétie, 75382 Paris Cedex 08, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Patent 1,080,795

Éclateur déclenché dans un gaz/296

L'invention concerne un éclateur déclenché dans un gaz. La décharge de déclenchement se produit sur le bord d'une feuille diélectrique mince (14) entre deux couches métalliques minces (10,12) adhérant sur les deux faces de cette feuille diélectrique. Application à la diminution du coût de fabrication et à l'augmentation de la précision temporelle

Sparking Device in Gas Medium/296

de déclenchement d'un éclateur. Écrire: Compagnie Générale d'Électricité S.A., 54 rue La Boétie, 75382 Paris Cedex 08, France et faire parvenir une copie de votre correspondance initiale à la Division Commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Patent 1,080,814

Automatic Welding Apparatus for Polygonal Workpieces/296

Automatic welding apparatus for making uniform welds around the perimeter of a polygonal shape made up of a succession of flats and arcuate corners is described in connection with a tubular hexagonal workpiece which is rotated about its longitudinal axis beneath a welding torch assembly. The distance of the welding electrode above the workpiece is maintained as preselected by automatic voltage control means. The welding electrode is automatically maintained perpendicular to a tangent to the surface of the workpiece and extending in the plane of the weld line by oscillating the welding torch assembly so that its longitu-

Appareil de soudage automatique pour éléments polygonaux/296

dinal axis describes an arc having its center on the longitudinal axis of rotation of the workpiece in synchronization with the rotation of the workpiece. Synchronization is provided by means of an annular cam surface which is rotated in predetermined relation to the workpiece and which controls the oscillation of the welding torch assembly. Write: Carpenter Technology Corporation, 101 West Bern Street, Reading, Pennsylvania 19603, U.S.A. and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Patent 1,080,823

Centrifuge Apparatus/296

A method and apparatus for operating a continuous flow blood separation centrifuge are provided. The hematocrit of the entrant whole blood is continuously maintained at

Centrifugeur/296

an optimum constant value by the addition of plasma to the entrant blood. The hematocrit of the separated red cells is monitored to indicate the degree of separation taking

place, thereby providing a basis for regulating the flow through the centrifuge. Write: James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C.

20545 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Patent 1,080,835

Method for Forming P-N Junctions/296

Méthode de fabrication de jonctions/296

This invention is an improved method for preparing p-n junction devices, such as diodes and solar cells. High-quality junctions are prepared by effecting laser-diffusion of a selected dopant into silicon by means of laser pulses having a wavelength of from about 0.3 to 1.1 μm , an energy area density of from about 1.0 to 2.0 J/cm², and a duration of from about 20 to 60 nanoseconds. Initially, the dopant is deposited on the silicon as a superficial layer, preferably one having a thickness in the range of from about 50 to 100 Å. Depending on the application, the values for the above-mentioned pulse parameters are selected to produce melt-

ing of the silicon to depths in the range from about 1000 Å to 1 μm . The invention has been used to produce solar cells having a one-sun conversion efficiency of 10.6%, these cells having no antireflective coating or back-surface fields. Write: James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Patent 1,080,841

Construction for Dewatering Buildings and Maintaining them Dry/296

Installation permettant l'exhaure et le maintien au sec d'immeubles/296

Buildings are dewatered and maintained dry by utilizing metallic electrical conductors in the form of foils, sheets, wire screens, gratings, rods, or parts thereof, placed at different, parallel, predominantly horizontal levels of the walls of the building. Every electrical conductor of one level is connected with one or more conductors of the other level, all the conductors having the same composition. Write:

Gerhard Poppei, Wismar, Ernst-Scheelstr. 15, Democratic Republic of Germany; Hermann Niendorf, Halle/Saale, Margueritenweg 21, Democratic Republic of Germany and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Matejki 1/5, Srodmiescle, Warsaw, Poland.

Patent 1,081,020

Metal Cover Frame for a Shaft/296

Cadre de tampon métallique pour puits/296

The invention provides a metal cover frame for an open shaft, adapted to be installed flush with a road surface and connected in a vertically adjustable manner, to adapt to new road levels when the roadway is resurfaced, to a concrete frame which is adapted to rest on the upper end of the shaft, the metal frame comprising means for holding a cover and having an inwardly projecting lip provided with through holes, internally threaded sleeves or sockets adapted to receive tightening screws corresponding to the through holes in the metal frame being provided in the concrete frame, and tightening screws penetrating the through holes and received in the sleeves or sockets to secure the

metal cover frame to said concrete frame, said inwardly projecting lip provided with integral raising means comprising said tightening screws at the bottom side of the inwardly projecting lip of the cover frame being provided with collars so that the vertical adjustment can be carried out by means of the tightening screws for raising said cover frame in respect to said concrete frame, said raising means being accessible upon lifting said cover. Write: Johannes L. Piso, Ghurschweg 17, CH-6020 Emmenbrucke, Netherlands and send a copy of your initial correspondence to: Commercial Division, Canadian Embassy, Sophialaan 7, The Hague, Netherlands.

Patent 1,081,021

Packer and Harrow Unit for Discers and the Like/296

Ensemble rouleau et herse à disques/296

A frame is provided having two or three hitch members extending forwardly for pivotal attachment to the rear of the agricultural implements such as a discer. Packing components are pivotally secured to the rear of the frame and a harrow support tube is bearably supported across the frame for partial rotation. A fluid operated ram extends between the rear of the frame and of the tube to partially

rotate the tube and hence raise or lower conventional harrows supported from the tube, and the rear of the discer. Write: Antoine E. Bouvier, Box 145, Meyronne, Saskatchewan S0H 3A0 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.

Patent 1,081,071

Appliance for Foot Orthosis/296

This orthopedic appliance for correcting a wide variety of lower extremity deformities comprises: a bar which is scored so that it can be broken to provide a bar of a desired length; lockable articulated joints at both ends of the bar; releasable clips for rapidly attaching and detaching the articulated joints to and from the bottom of the patient's shoes; index markings allowing the articulated joints to be accurately adjusted and locked in the desired position; nesting extension attachments; and stabilizer rods for maintaining plantar or dorsi flexion and insuring that the device is not defeated by bending the knees. Included in the appliance is a lockable articulated joint utilizing a

Orthèse du pied/296

hollow spherical member clamped between a spherical socket and a spherical locking member. The radius of curvature of the locking member is slightly greater than that of the inside of the hollow spherical member, and the radius of curvature of the outside of the hollow spherical member is likewise slightly greater than that of the socket. Write: Mario DiGiulio, Spectra Industries Corp., 405 Baily Road, Yeadon, Pennsylvania 19050, U.S.A. and send a copy of your initial correspondence to: Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Patent 1,081,153

Guiding Device for Endless Rope/296

A guiding device for preventing displacement of an endless rope from its regular position on sheaves mounted on sheave frames located along the path of the rope is disclosed. The guiding device comprises an elongated member adapted to be pivotally mounted on the sheave frame and having a guide portion adapted to extend along the side of the rope for preventing displacement of the rope from its regular position on the sheave. The guide portion is adapted to be engaged by a load supporting rope attach-

Dispositif de guidage pour câble sans fin/296

ment mounted on the rope and to be pivoted to a position out of the way of the rope attachment but to return to its original position after passage of the cable attachment. Write: Maurice Ouellet and Joseph St-Pierre, 2035 de la Normandie, Quebec (Québec) G1L 3Y7 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.

Patent 1,081,167

Rack for Storing Goods of Considerable Length/296

Rack for storing goods of considerable length, such as battens and bars, including compartments in each of which a carriage is adapted to run on longitudinal rails. The carriage is short and vertical, has the same cross-section as the compartment and has wheels located at its upper position. The carriage supports the inner end of the goods, while the outer end of the goods in the storage position

Râtelier servant au rangement de pièces longues/296

rests in the compartment. A lifting device is structured for supporting the outer end of the goods when inserting and pulling out the goods. Write: Acierex AB, Fack S-103, 80 Stockholm, Sweden and send a copy of your initial correspondence to: Commercial Division, Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm 16, Sweden.

Patent 1,081,298

Paraboloid Economical Heating Device/296

In a heating device it is known to have a heating element supplying heat to be used on one side of the heating element. In this invention a parabolic heat reflector is provided with a heat collector in the focus of the reflector and the heat collector itself is connected with the heating element by a heat conductor. The reflector reduces the heat losses resulting of radiation and the heat collector delivers heat to the heating element which results in a bigger difference between the temperatures of the substance to be heated and the heating element itself. Because of the heat

Radiateur parabolique économiques/296

being conducted away from the heat collector to the heating element the collector itself is cooled which reduces the radiation of heat from the collector to the reflector. To reduce heat losses because of heat conduction through the reflector the reflector may be insulated on its outside. Write: Bernd U. Lutter, 571 College Avenue, Suite 4, Winnipeg, Manitoba R2W 1N1 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.

Patent 1,081,420

Injection Welding Apparatus/296

A mould assembly for injection welding an outer thermoplastics sheath of a cable end portion to an end portion of a thermoplastics sleeve disposed about the sheath is disclosed together with the method of joining these two end portions. The mould assembly comprises a cylindrical member which can be located within the sleeve so as to support the sleeve and a sealing disc which is shaped to extend between the sheath and the sleeve to exclude injected material from the interior of the sleeve. The disc has an aperture receiving the cable sheath and a peripheral

Appareil de soudage à injection/296

flange which can be received between the end of the cylindrical member and the sleeve. The assembly also comprises a mould which encloses the end portions in a mould cavity and which bears against the outside of the sleeve to clamp the flange of the disc between the sleeve and the cylindrical member. Write: The Post Office, 23 Howland Street, London, W1P 6HQ, England, U.K. and send a copy of your initial correspondence to: Commercial Division, Canadian High Commission, One Grosvenor Square, London, W1X 0AB, England.

Patent 1,081,435

Process for Producing Pulverous Selenium from Raw Selenium/296

A process for producing pulverous selenium from dried raw selenium by distillation, granulating the molten distillate, dripping it into water, grinding the granules, and drying the powder, in which the drying of the raw selenium before the distillation is by spray drying, the selenium granules being ground while in the form of an aqueous slurry,

Procédé de fabrication de sélénium en poudre à partir de sélénium brut/296

and the final drying of the ground selenium slurry being again effected by spray drying. 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, Pohjois Esplanadi 25B, P.O. Box 779, 00101 Helsinki, Finland.

Patent 1,081,453

Replaceable Edge Bit Assembly/296

Used on the mold board of an earth-working implement, the bit assembly comprises a bit having a front portion adapted to engage the lower front edge of the mold board, and a rear portion adapted to engage the lower rear edge of the mold board, a wear plate secured to the edge of the front portion of the bit, a skid shoe secured underneath the

Garniture de rive remplaçable pour accessoire d'engin de terrassement/296

rear portion of the bit, and a bracket for securing the bit to the mold board. Write: Lucien Cousin, 749 rue Stirling, Labrador City, Newfoundland A2V 1Y9 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.

Patent 1,081,457

Calcination/296

The invention relates to a method of thermal calcination of minerals wherein mineral matter is calcined in a calcination system comprising an optional pretreatment zone and a kiln directly fired by a fuel which must exceed a predetermined calorific value but must not exceed a predetermined ash content, and wherein combustible matter which need not satisfy said calorific value and ash content requirements is burned in separate combustion apparatus external to the calcination system and heat transferred from

Méthode de calcination/296

said separate combustion apparatus to the calcination system in at least one gaseous medium is employed to replace part of said fuel. Write: The Associated Portland Cement Manufacturers Limited, Portland House, Stag Place, London, England SW1E 5BJ, U.K. and send a copy of your initial correspondence to: Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Patent 1,081,517

Méthode et appareil pour photographier les pages d'un livre relié, broché ou qui ne peut être ouvert complètement/296

Cette invention a pour objet une méthode pour photographier les pages d'un livre relié, broché ou qui ne peut être ouvert complètement. Elle a également pour objet un appareil pour mettre en oeuvre cette méthode, qui consiste à

Method and apparatus for photographing pages of a binded, stapled or partly opened book/296

photographier séparément les pages de gauche et les pages de droite du livre et à effectuer entre chaque photographie à la fois une rotation de 180° de la fenêtre de cadrage par rapport au document à photographier et une

rotation de 180° dans le même sens ou en sens inverse de l'appareil de prise de vues par rapport à la fenêtre de cadrage, la somme des rotations équivalant alors à 360° ou à 0°. Cette méthode permet d'obtenir à la fois une même orientation relative et un rapprochement des pages de gauche et de droite sur le film. Écrire à: Gérard Mercure, 505,

38, rue Duchesne, Rimouski, Québec Canada G5L 2E7 et envoyer 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.

Patent 1,081,581

Automatic Valve for Controlling the Passage of an In-Feed Pressure Fluid to be Delivered in Predetermined Quantities into a Receiver/296

Automatic valve for controlling the passage of an in-feed pressure fluid to be delivered in predetermined quantities into a receiver. The automatic control valve comprises two tandem-joined piston cylinders. The first piston cylinder comprises two cavities of different volumes. The second piston cylinder comprises only one cavity. There is placed a piston in each of the cavities of the first piston cylinder, which pistons have different diameters and the circumference surfaces are spaced from the inside walls limiting the respective cavities of the first piston cylinder. The cavity of the second piston cylinder comprises a shock-

Régulateur/doseur de débit d'un fluide sous pression/296

absorbing device connected with a piston rod carrying also both the pistons placed in the cavities of the first piston cylinder. The piston placed in the cavity of the bigger volume of the first piston cylinder is fixed to the piston rod, whereas the piston placed in the cavity of the smaller volume of the first piston cylinder is shiftable on the piston rod between two limit stops. Write: Firma Marcel Boschung Ried, 3185 Schmitten, Canton of Freidburg, Switzerland and send a copy of your initial correspondence to: Commercial Division, Canadian Embassy, Kirchenfeldstrasse 88, 3005 Berne, Switzerland.

Patent 1,081,738

Système de barrure pour tirants d'échafaudage/296

La présente invention a pour objet un système de barrure pour raccorder des tirants pourvus d'au moins une extrémité perforée, aux poteaux verticaux d'un cadre rigide d'échafaudage. Ce système comprend une tige fixée perpendiculairement au poteau vertical du cadre destinée à recevoir l'extrémité perforée d'un tirant; une barre fixée sur la tige à faible distance du poteau et s'étendant vers le haut depuis la tige jusqu'au poteau, la barre étant inclinée à un angle d'environ 15° par rapport à l'axe du poteau. Ce système comprend également un bras parallèle à la tige, dont une extrémité est fixée à une glissière verticale et

Interlocking System for Scaffolding Tie Bars/296

l'autre extrémité est prolongée vers le bas à un angle d'environ 45° par rapport à l'axe du bras pour former un loquet. Les difficultés d'utilisation d'un tel système de barrure sont considérablement réduites. Il est donc avantageux de l'employer dans la solidification d'échafaudages. Écrire à: Les Échafaudages Du Bas St-Laurent Inc., 1063, rue du Phare, Pointe-au-Père, Cté Rimouski, Québec, Canada G0K 1G0 et envoyer 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.

Patent 1,081,754

Thermostatically Controlled Electric Hotplate Assembly with Temperature — Responsive Vertically Movable Hotplate and Coupled Thermostat/296

The invention comprises a thermostatically controlled electric hotplate assembly comprising a heating plate; electric heating means for heating the plate; bridge means formed of a flexible sheet material connecting the heating plate with the unheated zone; and actuating means for actuating the energization and de-energization of the heating means. The bridge means acts to transform horizontal expansion and contraction of the heating plate respectively into upward and downward vertical movement thereof with respect to the unheated zone and the heating plate is mechanically coupled with the actuating means for respectively de-energizing and energizing the heating plate in response to such upward and downward vertical movement

Réchaud électrique à régulateur thermostatique, avec surface de chauffe à commande thermique pouvant se déplacer sur un axe vertical, et thermostat connexe/296

of the plate. In a preferred embodiment, the actuating means comprises a vertically aligned rod urged upwardly into contact with the heating plate, and a switch electrically coupled to the heating means and mechanically coupled with the rod, whereby vertical movement of the rod causes opening and closing of the switch to respectively de-energize and energize the heating means. The invention provides close control of the hotplate temperature without the necessity for costly and failure-prone multi-probe electronic systems. Write: A/S Ardal og Sunndal Verk Sørkedalsvein 6, Oslo 3, Norway and send a copy of your initial correspondence to: Commercial Division, Canadian Embassy, Postuttak, Oslo 1, Norway.

Patent 1,081,911

Prefabricated Building Block System (Penguin Building Blocks)/296

A wall construction is disclosed that uses light weight foam plastic blocks with an outer skin of fiberglass or concrete. The blocks are stacked between top and bottom rails with a sealing element in between them. Cable means extend between the rails to securely tie the blocks and rails

Système de construction par éléments préfabriqués/296

on a foundation. Write: Franklin Thomas, P.O. Box 1487, Grande Prairie, Alberta, T8V 4Z3, Canada 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.

Patent 1,081,969

Recovery of Transplutonium Elements from Nuclear Reactor Waste/296

A method of separating actinide values from nitric acid waste solutions resulting from reprocessing of irradiated nuclear fuels comprises oxalate precipitation of the major portion of actinide and lanthanide values to provide a trivalent fraction suitable for subsequent actinide/lanthanide partition, exchange of actinide and lanthanide values in the supernate onto a suitable cation exchange resin to provide an intermediate-lived raffinate waste stream substantially free of actinides, and elution of the actinide

Récupération des éléments transplutoniens compris dans les déchets de réacteurs nucléaires/296

values from the exchange resin. The eluate is then used to dissolve the trivalent oxalate fraction prior to actinide/lanthanide partition or may be combined with the reprocessing waste stream and recycled. Write: James E. Denny, Assistant General Counsel for Patents, Office of General Counsel, U.S. Department of Energy, Washington, District of Columbia 20545, U.S.A. and send a copy of your initial correspondence to: Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Patent 1,082,017

Self Cleaning Dental Mirror/296

A self cleaning dental mirror apparatus utilizing the fluid dynamic properties of water and air to siphon the water across the reflective surface by air pressure through nozzle flanges surrounding a portion of the rim of the mirror surface, thus allowing the dentist free and continuous use of the dental mirror apparatus without interference from debris, mist and sprays normally produced in everyday dental operations. A first nozzle dispenses a thin layer of liquid, e.g. water, onto the mirror surface and the second nozzle, disposed immediately above the first nozzle, simultaneously dispenses a thin laminar layer of gas, e.g. air, across and parallel to the mirror surface at a pressure

Miroir dentaire auto-nettoyant/296

greater than that of the layer of liquid. The apparatus is adaptable to standard dental consoles with means to regulate, measure and control all fluids separately or simultaneously and to provide a regulating means to control the amount of surface tension reducer operating through the water system. Write: Randy M. Widen, 1601 18th St. N.W., Washington, D.C. 20009, U.S.A.; Donald Simon, 2353 Vine Street, Berkeley, California 94708, U.S.A. and send a copy of your initial correspondence to: Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014.

Patent 1,082,032

Pulling Hitch for Agricultural Implements/296

A pulling hitch for connecting a plurality of transverse agricultural implements to a single towing vehicle for both field and road usage. First and second rigid horizontal frames respectively tow a pair of independent transverse implements. The first frame is towed behind a tractor by means of a pivotable tongue. The second frame is pulled from the rear of the first frame. It is pivotable between a laterally extended position for field use, and a rearwardly

Attelage pour instruments aratoires/296

extending position for road travel. Extensible braces or cylinders are utilized to locate the second frame relative to the first, and to locate the pulling tongue of the first frame relative to it. Write: Robert D. Hardesty, Route 1, Box 39, Spangle, Washington 99031, U.S.A. and send a copy of your initial correspondence to: Canadian Consulate General, 412 Plaza 600, Sixth and Stewart, Seattle, Washington 98101.

Patent 1,082,051

Canoe Shell Structure/296

A canoe shell is made of resin impregnated glass fibre in a split mold with flotation chambers formed along each side just below the gunwales. After removal from the mold, pre-formed flotation blocks of expanded foam such as polyurethane are inserted into the chambers with the opening vent being sealed with a cover of resin impregnated glass fibre cloth. Pre-formed expanded foam blocks are also inserted

Coque de canot/296

in the nose and stern and sealed into place in a similar manner. Write: Jacob Pawlosky, 407 Hazeldell Avenue, Winnipeg, Manitoba; Steve Hasiuk, 1217 Tanner Street, Winnipeg, Manitoba 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.

Patent 1,082,067

Solar Heater Units/296

A shallow tank which is inclined when the unit is in operative position and having a relatively large surface to face in the direction of the sun, and a wide tube or a plurality of tubes extending over this large surface and communicating at one end directly with the interior of the tank near the lower end thereof and communicating at an opposite end directly with the interior of the tank spaced above its lower end, thermosiphon circulation being maintained as liquid in the unit is heated by the sun when in the tube or tubes

Appareil de chauffage solaire/296

and flows therefrom into the tank, down through the tank and back into the tube or tubes. It is preferable to provide an insulation shield over the end of each tube which directs liquid into the tank. Write: Frederick A. Smith, 807 - 1246 Haro Street, Vancouver, British Columbia V6E 1E7, 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.

Patent 1,082,099

Well Perforating Method for Solution Well Mining/296

An improved method of solution well mining is provided which, among other advantages, enhances the injectivity of the wells and eliminates the need for underreaming and the use of well screens. In solution well mining, a leaching solution is pumped into an injection well so as to flow through a mineralize zone to a plurality of production wells, the solution which contains the mineral to be recovered being pumped out of the production wells. The invention provides for using a high pressure water jet to perforate the cemented casings of the well so as to, *inter alia*, enhance

Méthode de forage de puits pour extraction de mineral au moyen d'un solution/296

injectivity and provide sand control. The perforations are arranged in a preselected non-uniform pattern in the production well, with the density being the greatest at the bottom of the zone, so as to promote uniform flow of the solution. Write: Mr. George Kudravetz, Product Manager, NTIS United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia, U.S.A. and send a copy of your initial correspondence to: Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Patent 1,082,156

Lifting Body Aircraft for V/STOL Service/296

Augmentation of aerodynamic lift for a given amount of power in STOL operation of a V/STOL aircraft is achieved by combining the unique features of a lifting body with those of a "jet flap", i.e. an aerodynamic mechanism in which a slipstream is directed over a deflected flap. Specifically, a movable flap is located on the trailing edge of the lifting body, and a tiltable rotating blade propeller, which propels the aircraft in the normal manner in cruising, may be tilted, in low-speed flight, in order to direct air toward the leading edge of the flap and over the upper surface thereof. The movement of a large mass of air at a higher velocity over the upper surface of the flap maintains the air flow over the flap in an attached condition, and entrains and energizes the lower-velocity boundary layer on the air-

Dispositif sustentateur pour avions et adacs/296

foil forward of the flap, thereby producing an augmentation in lift. As the trailing edge of the lifting body is located well behind the aircraft's center of gravity, the lifting body makes it possible for a conventional rotating blade propeller to be used efficiently and effectively to produce the jet flap effect. The lifting body also lends itself especially to lift augmentation in that, for a given lifting surface area, the low aspect ratio of the lifting body gives rise to a much greater lift augmentation than would be afforded by a high aspect ratio surface. Write: Aereon Corporation, Route 325, 1 Palmer Square, Princeton, New Jersey 08540, U.S.A. and send a copy of your initial correspondence to: Canadian Consulate General, 1251 Avenue of the Americas, New York, N.Y. 10020.

Patent 1,082,251

Disposable Litter Container/296

A disposable litter container is formed from a pliable bag, preferably a transparent PVC bag, provided with relatively stiff plates along each side of the bag opening, the plates facilitating the opening of the bag and the scooping of the litter into same, whereupon the plates are placed face-to-face to close the bag prior to its disposal. The invention provides the advantage of low production costs, convenient use, small size resulting in easy storage of a plurality

Litière jetable/296

of the containers, and the possibility of utilizing the product as a promotional piece for pet shops or the like. Write: Terence A. Flook, 286 Kathleen Street, Guelph, Ontario 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.

Patent 1,082,378

Abutable Light-Emitting Device Modules for Graphic Display Assemblies/296

A self-contained display module of light-emitting diodes (LEDs) is disclosed which has an array of LEDs in a four-edge-abutable pattern on one surface of a substrate, while refresh memory and row and column driving circuitry for the LEDs are adjacent the opposite surface of the substrate. Visual display assemblies capable of alphanumeric and/or graphic display may conveniently be constructed

Module d'affichage juxtaposable à dispositifs électroluminescents/296

from a matrix of these modules, when assembled on a common backplane. Write: Litton Industries, Inc., 360 North Crescent Drive, Beverly Hills, California 90210, U.S.A. and send a copy of your initial correspondence to: Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014.

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Paper or microfiche copies of the following U.S. patent applications may be purchased from NTIS for \$5.00 (PC) and \$3.50 (MF) using Visa, Master Charge, American Express NTIS deposit accounts, cheque or money order in U.S. funds. Requests for information to license the corresponding Canadian patent rights should be addressed to the U.S. departments indicated with a copy of your initial correspondence forwarded to the Canadian consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102. If you are advised that a corresponding Canadian patent has not been sought, you may wish to retain the services of Mr. Gayle Parker of Technology Licensing Consultants Inc., 8346 Orange Court, Alexandria, Virginia 22309 Tel: (703) 780-4314 to investigate the possibility of acquiring patent rights in Canada and information relative to the licensing of any U.S. Government Technologies for your eventual use.

NTIS

**Mr. George Kudravetz
Product Manager
U.S. Department of Commerce
National Technical Information Services
5285 Port Royal Road
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Navy

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

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DOE

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

NASA

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

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

PAT-APPL-824 777

Preparation of Protein Concentrates from Whey and Seed Products/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed August 15, 1977, by the Department of Agriculture. Stable protein concentrates are prepared from whey and seed products by a process which comprises mixing the seed product and the whey, adding alkali to the mixture,

Préparation de concentrés de protéines à partir de petit-lait et de graines/296

and separating a juice containing soluble protein and suspended starch and fat therefrom. Then, the juice is treated to precipitate a protein concentrate either by adding acid to pH 5-6 and heating to 85-95C, or by adding acid to pH 3-4 and then adding sodium hexametaphosphate. Write: NTIS.

PAT-APPL-6-132 583

Vacuum-Operated Produce Handling Systems/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 21, 1980, by the Department of Agriculture. This invention relates to the handling of fruits and vegetables during and after field harvesting. A novel flume hopper

Systèmes de traitement à convoyeur aspirant/296

is employed in combination with a vacuum-operated hydraulic conveyor in a field or storage handling system for efficiently transferring produce to a holding tank without inflicting damage. Write: NTIS.

PAT-APPL-6-132 597

Mushroom-Growing Medium/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 21, 1980, by the Department of Agriculture. This invention is related to and has among its objects the provision of novel mushroom-growing media and novel methods of making the same. A cellulosic medium for growing mushrooms is disclosed. A liquid mixture con-

Milieu de croissance pour champignons/296

taining sources of soluble carbon and nitrogen is fermented and mixed with cellulosic material. The so-treated cellulosic material is held at a temperature and for a time sufficient to allow substantial reduction of organisms damaging to mushroom culture. The cellulosic material then is cooled to a temperature suitable for spawning. Write: NTIS.

PAT-APPL-6-105 362

Surface Acoustic Wave Substrate Having Orthogonal Temperature Compensated Propagation Directions and Device Applications/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed December 19, 1979, by the Department of the Air Force. Surface acoustic wave devices such as reflective array compressors which utilize orthogonal propagation directions are improved by employing a substrate member the surface acoustic wave propagation surface of which exhibits zero temperature coefficient of delay in two orthogonal directions. Temperature compensation means are eliminated and improved performance is realized by align-

Substrat réfléchissant les ondes acoustiques directes dans des directions de propagation orthogonales, à compensation thermique et susceptible d'applications dans les dispositifs réfléchissant/296

ing the principal and secondary axes of propagation of the device with the zero temperature coefficient of delay directions. A single cut quartz substrate having its propagation surface defined by a plane coinciding with the Euler angles $\lambda = 0.0 \text{ deg.}$; $\mu = 125.87 (+ 1.6) \text{ deg.}$, $\theta = 45.0 \text{ deg.}$ enables realization of the concept with reflective array compressors and other reflective quartz devices. Write: NTIS.

PAT-APPL-6-115 514

Instantaneous Opening Positive Lock Mechanism/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 25, 1980, by the Department of the Air Force. An actuating rod is locked firmly in position by a split spring locking ring which engages matching shoulders in a groove on the rod. An electrical signal operates to energize a squib gas generator which produces pressure forcing a

Verrou positif à déclenchement instantané/296

piston inward unlocking the ring and engaging wedge faces on the split locking ring causing the ring to spread open and release the actuating rod which moves upward in response to the forces of an extension spring. When locked, the rod has great resistance to imposed axial and side loads. Write: NTIS.

PAT-APPL-6-115 846

Long Time Constant Clutter Tracker for Radar System/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 28, 1980, by the Department of the Air Force. A long time constant clutter track loop is used to correct velocity inputs to a high PRF radar and to correct for drift in the local oscillator thereby minimizing the effect of spurious signals and sidelobe clutter on the tracker error. A predicted clutter frequency signal is generated from the radar inertial navigation system and mixed with the main beam clutter doppler frequency signal. Any resulting error

Dispositif de poursuite de clutter à longue constante de temps pour système radar/296

signals (the difference between the predicted clutter signal frequency and the actual received doppler clutter frequency signal) are detected and averaged in antenna scan quadrants over each 360 deg antenna scan. Components of velocity error from adjacent quadrants are used to adjust clutter velocity of the predicted clutter frequency signal for the next antenna scan period and the average error for all quadrants during a scan period provides DC offset for local oscillator drift. Write: NTIS.

PAT-APPL-6-115 847

Radial and Axial Flow Variable Exhaust Nozzle for a Gas Turbine Engine/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 28, 1980, by the Department of the Air Force. Minimum thrust at idle speed, and maximum thrust with minimum losses at speeds above idle, are provided in a gas turbine engine by the use of a plurality of adjacent, successively overlapping, annularly disposed, pivotable, exhaust nozzle-forming fairings which are opened during idle to

Tuyère d'échappement à écoulements radial et axial pour turbines à gaz/296

direct the exhaust gases overboard in radial directions between the opened fairings, and which are closed during speeds above idle to direct the exhaust gases overboard in an axial direction through an axially aligned rearwardly located exit opening of the exhaust nozzle. (Author) Write: NTIS.

PAT-APPL-6-118 008

High Energy Solid Propellant Composition/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 4, 1980, by the Department of the Air Force. In accordance with this invention, it has been found that the addition of certain perchlorate additives to poly(ethyleneoxide) diol containing high energy propellants provides the propellants with superior mechanical properties. The particular perchlorate additives found to overcome the mechanical behavior problem of prior art propellants are

Propergol solide de grand rendement énergétique/296

selected from the group consisting of lithium perchlorate (LiClO₄) and magnesium perchlorate (Mg(ClO₄)₂). Accordingly, the primary object of this invention is to provide an additive material capable of providing PEG containing propellants with superior mechanical properties. Another object of othis invention is to provide a mechanical behavior additive particularly adapted for use with high energy solid propellants. Write: NTIS.

PAT-APPL-6-119 345

Signal Injection Circuit for Radar Gain and Noise Tests/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 7, 1980, by the Department of the Air Force. A circuit injects the signal from a stable localized oscillator past a pin diode switch through a first circulator to a waveguide, a second circuit injects a noise signal from a generating diode through a second circulator to the first circulator to the waveguide, a switching system causes the diodes to function in a coordinated manner. The invention relates generally to microwave circuits and more particularly to circuits that provide coordinated injection of test signals into a waveguide. Modern radar systems include

Circuit d'injection de signal pour essais sur le gain et le bruit radar/296

sub-systems build in for the automatic testing of various components to insure that maximum performance is achieved at all times. As part of these testing systems it has been found useful to add appendage ports to various microwave devices whereby known signals may be injected and processed by the device. The output of the device is then analyzed and compared with the input signal and its operational effectiveness determined. Typically, in modern radar systems there are two RF coupled ports for built-in testing. Write: NTIS.

PAT-APPL-6-120 809

High Power Microwave Generator Apparatus/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 12, 1980, by the Department of the Air Force. Coherent microwave radiation is generated in and transmitted through a waveguide/drift tube by means of an injected relativistic electron beam the parameters of which, in combination with the waveguide/drift tube geometry and dimensions effect a virtual cathode oscillation condition within the waveguide/drift tube. Tuning of the device is accomplished by manipulation of the relativistic electron beam parameters and/or waveguide/drift tube physical dimensions. The present invention relates broadly to microwave generators, and in particular to a high power

Générateur d'hyperfréquences haute puissance/296

microwave generator apparatus utilizing a relativistic electron beam to generate microwave energy as a consequence of induced virtual cathode oscillation. Microwaves can be generated as direct radiation from electrical sparks across gaps by applying a high electric potential. The spark gap can also be a part of a very-high-frequency oscillating circuit which radiates electromagnetic waves. Microwaves can also be derived from the thermal radiation of warm bodies. However all these sources are unsatisfactory because of the lack of purity of the wave and the low power of the radiation. Write: NTIS.

PAT-APPL-6-123 612

Coupler for Feeding Extensible Transmission Line/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 22, 1980, by the Department of the Air Force. An extensible surface wave transmission line is fed through a coupler that utilizes the geometric properties of a planar ellipse. The coupler is in the form of a planar elliptical r.f. cavity with the r.f. input signal being fed to the cavity at the location of one ellipse focus point and the extensible output transmission line slidably traversing the cavity at the position of the other ellipse focus point. The

Coupleur d'alimentation de ligne de transmission extensible/296

elliptical eccentricity of the r.f. cavity is chosen such that the direct path between the ellipse foci is one half wavelength less than the ellipse major axis (or any indirect path-length between foci) thereby ensuring constructive addition of all input signals at the coupler output. The coupler is adapted to use in conjunction with aircraft antennas, transit and rail system applications, and electrical cable manufacturing quality control systems. Write: NTIS.

PAT-APPL-6-126 073

Physical Deterrent Barrier with Upward Locking Detection Sensor for Intruder Detection System/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 29, 1980, by the Department of the Air Force. A physical deterrent barrier is utilized as an integral part of an intruder detection sensor that provides surveillance of intrusions in the air space over the barrier. The sensor includes a corner reflecting antenna that is coextensive with and mounted on the top of the barrier. The antenna is fed from a leaky transmission line and it illuminates the air space over the barrier with r.f. energy from the intrusion

Barrière anti-intrusion avec capteur orienté vers le haut pour système de détection des intrus/296

detection system transmitter. Reflections caused by intrusions over the barrier are processed by detection system signal processing equipment to determine the incidence and locations of intrusion events. In a preferred embodiment the sensor is integrated into a barbed wire topped chain link fence by arranging appropriately spaced parallel strands of barbed wire into a V configuration so as to effect an electrical corner reflector at the system operating frequency. Write: NTIS.

PAT-APPL-6-127 017

Method of Making Integrated Waveguide Cavities/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 4, 1980, by the Department of the Air Force. This invention provides a method for forming a waveguide cavity as a step in the process of diode fabrication. Semiconductor diodes are formed in a conventional manner. A plate of waveguide material having a thickness equivalent to waveguide height and slots corresponding to waveguide

Méthode de fabrication de cavités de guide d'ondes intégrées/296

width is bonded to a semiconductor wafer containing a number of diodes. The slots are formed to correspond to rows of diodes, so that when bonded the diodes are centered in the slot. The package may then be divided as needed and the sides and thickness of the slot form the waveguide. Write: NTIS.

PAT-APPL-6-128 272

Survivable Satellite Bus Structural Frame/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 3, 1980, by the Department of the Air Force. A three-sided prism shaped structure including upper and lower graphite/epoxy honeycomb sandwich decks spaced by rectangular graphite/epoxy longerons and braces, all of which are attached by using machined aluminum fittings. A graphite/epoxy sandwich panel and cone assembly is

Charpente récupérable pour satellite/296

bonded to one side of the structure for mounting a space sextant therein. Aluminum equipment panels are attached to the other two sides. The bus structure is manufactured in accordance with available procedures for fabricating graphite/epoxy composite material which is the primary structural material. Write: NTIS.

PAT-APPL-6-129 858

Biaxial Shear Force Gauge/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 13, 1980, by the Department of the Air Force. This invention pertains to a gauge for use with a test specimen that is made of a preselected ablative material to be tested, and that is in a high temperature gaseous flow (i.e., a hot environment) which is capable of ablating the test specimen, and which also is capable of inducing, and of exerting on the test specimen, a resultant shear force (i.e., a shear force vector) that comprises constituent axial and lateral forces. The test specimen is bonded on the mounting surface of a block member (of the gauge) that is posi-

Jauge d'effort de cisaillement biaxiale/296

tioned on bearings, within a housing, for movement in axial and lateral directions. A plurality of force sensors are positioned around the perimeter of the block member, and the constituent axial and lateral forces of the resultant shear force that is acting on the tests specimen are transmitted to these sensors. The components of the gauge are protected from shock by their structure and positional relationship, and are protected from overheating by the water-cooling of the housing. Unlike the prior art, the gauge also can be used in a cold, rather than a hot, environment. Write: NTIS.

PAT-APPL-6-078 892

Multipurpose Humidity Controlled Agent Generator/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed October 24, 1979, by the Department of the Army. The principal object of this invention is to provide an agent generation system and method for calibrating and testing the agent sensitivity of agent detector alarm system under varying conditions of relative humidity and temperature. Another object of this invention is to provide an agent dilution system which will give a controlled concentration of agent vapor or agent aerosol under various controlled conditions of relative humidity and temperature. A further object of this invention is to provide a multi-purpose

Générateur d'agent chimique polyvalent à humidité contrôlée/296

chemical agent generation system which has interchangeable agent test chambers to avoid inter-agent contamination. A still further object of this invention is to provide an agent generation system having a test chamber which allows exposure of a detector item from within the chamber or from outside the chamber by means of a sample port. An additional object of this invention is to provide an agent generation system which will allow testing of an agent detector alarm by either static or dynamic exposure to agent laden air. Write: NTIS.

PAT-APPL-942 229

Method of Removing Actinide Elements from Mammalian Tissue/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed September 14, 1978, by the Department of Energy. According to the present invention, a solution of polyaminopolycarboxylic acid such as EDTA or DTPA and a bidentate secondary ligand such as salicylic acid or catechol or

Méthode d'extraction des actinides des tissus de mammifères/296

derivatives thereof containing electron withdrawing groups are introduced into the body and bloodstream whereby the actinide elements are solubilized by formation of a mixed ligand complex which is eliminated from the body by normal excretion. Write: Department of Energy.

PAT-APPL-956 317

Method for Fabricating Boron Carbide Articles/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed October 31, 1978, by the Department of Energy. The fabrication of boron carbide articles having length-to-diameter or width ratios greater than 2 to 1 is described. The process consists of hot pressing boron carbide powder into article segments or portions in which the segments have a length-to-diameter or width ratio less than 1.5, aligning a plurality of the initially hot-pressed segments in a hot-

Méthode de fabrication d'articles de carbure de bore/296

pressing die with the end surfaces of the segments placed in intimate contact with one another, and then hot pressing the aligned segments into an article of the desired configuration. The resulting article exhibits essentially uniform density throughout the structure with the bonds between the segments being equivalent in hardness, strength, and density to the remainder of the article. Write: Department of Energy.

PAT-APPL-956 709

Cross-Flow Electrofilter and Method/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 1, 1978, by the Department of Energy. The present invention relates to filtering devices that can be employed in clarifying nonaqueous carbonaceous liquids containing fine particles within slurries. It is particularly well adapted for use in clarifying carbonaceous liquid fuels such as those produced in the liquefaction of coal and other solid carbonaceous material. It is an object to provide a filter to remove solid particles suspended within the product of coal liquefaction processes with minimal plugging of the filter openings. It is a further object to provide a method of clarifying carbonaceous liquids containing finely dispersed solids through use of both electrophoretic and cross-flow filtration principles. It is a further object to

Electrofiltre à écoulements inverses et méthode/296

provide a method of clarifying liquid produced in the liquefaction of coal in which the electrophoretic mobility of particles and the relative permittivity of the liquid are controlled. In accordance with the present invention, an electrofilter apparatus is provided having an elongated housing with two passageways separated by a lengthwise porous filter medium. The first passageway includes an inlet for the flow of carbonaceous liquid containing solid particles and an outlet for a concentrate of the solid particles in a residual portion of the liquid. A second passageway receives and discharges clarified carbonaceous liquid through the porous filter medium. Write: Department of Energy.

PAT-APPL-957 618

Device for Measuring the Fluid Density of a Two-Phase Mixture/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 30, 1978, by the Department of Energy. A device is described for measuring the fluid density of a two-phase mixture flowing through a tubular member. A rotor assembly is rotatively supported within the tubular member so that it can also move axially within the tubular member. The rotor assembly is balanced against a pair of springs which exert an axial force in the opposite direction upon the rotor assembly. As a two-phase mixture flows

Dispositif de mesure de la masse spécifique d'un fluide dans un mélange à deux phases/296

through the tubular member it contacts the rotor assembly causing it to rotate about its axis. The rotor assembly is forced against and partially compresses the springs. Means are provided to measure the rotational speed of the rotor assembly and the linear displacement of the rotor assembly. From these measurements the fluid density of the two-phase mixture is calculated. Write: Department of Energy.

PAT-APPL-957 619

Treatment of Electrochemical Cell Components with Lithium Tetrachloroaluminate (LiAlCl₄ sub 4) to Promote Electrolyte Wetting/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 3, 1978, by the Department of Energy. Electrochemical cell components such as interelectrode separators, retaining screens and current collectors are contacted with lithium tetrachloroaluminate prior to contact with molten electrolytic salt to improve electrolyte wetting. The LiAlCl₄ sub 4 can be applied in powdered, molten or solution form but, since this material has a lower melting

Traitement d'éléments de cellules électrochimiques au tétrachloroaluminate de lithium (LiAlCl₄) pour faciliter le mouillage électrolytique/296

point than the electrolytic salt used in high-temperature cells, the powdered LiAlCl₄ sub 4 forms a molten flux prior to contact by the molten electrolyte when both materials are initially provided in solid form. Components of materials such as boron nitride and other materials which are difficult to wet with molten salts are advantageously treated by this process. Write: Department of Energy.

PAT-APPL-960 982

Method for Inhibiting Corrosion in Aqueous Systems/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 15, 1978, by the Department of Energy. A method for inhibiting corrosion in aqueous systems containing components composed of aluminum, copper, iron, or alloys is described. The method consists of incorporating in the aqueous medium 2 to 10 ppm by weight of tolyltriazole; an effective amount of a biodegradable organic biocide; 500 to 1000 ppm by weight of sodium metasilicate; 500 to 2000 ppm by weight of sodium nitrite; and 500 to 2000 ppm by weight of sodium tetraborate. All of these

Méthode pour inhiber la corrosion dans les systèmes aqueux/296

concentrations are based on the weight of water in the system and maintain the pH of the resulting system in the range of 7.5 to 8.0. The method permits longterm operation with very low corrosion rates and bacteria counts. All of the additives to the system are biodegradable, permitting the treated aqueous medium to be discharged to the environment without violating current regulations. The method has application to solar systems in which an aqueous medium is circulated through aluminum-alloy heat exchangers. Write: Department of Energy.

PAT-APPL-961 152

Ceramic Component for Electrodes/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 16, 1978, by the Department of Energy. A new ceramic material for MHD generator electrodes has been prepared based upon yttrium chromite which has adequate electrical conductivity for MHD electrode application, which is less subject to volatilization and hydration problems of the analogous lanthanum chromite materials which have a low electrochemical corrosion rate. The new

Élément en céramique pour électrodes/296

material consists in the use of magnesium as a dopant and in the replacement of some or all of the chromium with aluminum. According to the present invention a ceramic component for MHD generator electrodes has the compositional formula: $Y_{x}(Mg_{y}Cr_{z})_{w}Al_{(1-w)}O_{3}$ where $x = 0.9$ to 1.05 , $y = 0.02$ to 0.2 , $z = 0.8$ to 1.05 , and $w = 1.0$ to 0.5 . Write: Department of Energy.

PAT-APPL-963 654

Annular Flow Diverter Valve/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 24, 1978, by the Department of Energy. The invention relates to valves useful both for flow divergence and flow convergence and more particularly to servo-controlled annular flow diverter valves which are also useful in the reverse direction for flow mixing. In more detail, the invention relates to a valve capable of splitting a single inflowing stream into two separate and distinct outflowing streams wherein one of the outflowing streams follows the

Valve défléctrice à écoulements annulaires/296

original flow path and the other outflowing stream follows a flow path immediately surrounding the first flow path. The valve operating on fluid flow in the reverse direction can also act as a controllable device capable of mixing two fluids flowing from a concentric system into the inner tube. Specifically, the invention relates to a valve for diverting flow from the center of two concentric tubes to the annulus between the tubes and for controlling the volume ratio of the flows. Write: Department of Energy.

PAT-APPL-966 524

LiCl Dehumidifier/LiBr Absorption Chiller Hybrid Air Conditioning System with Energy Recovery/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed December 4, 1979, by the Department of Energy. The invention relates to a hybrid air conditioning system that combines a solar powered LiCl dehumidifier with a LiBr absorption chiller. The desiccant dehumidifier removes the latent load by absorbing moisture from the air, and the sensible load is removed by the absorption chiller. The desiccant dehumidifier is coupled to a regenerator and the

Système hybride de climatisation à récupération d'énergie, mettant en jeu un déshumidificateur au LiCl et un refroidisseur à absorption au LiBr./296

desiccant in the regenerator is heated by solar heated hot water to drive the moisture therefrom before being fed back to the dehumidifier. The heat of vaporization expended in the desiccant generator is recovered and used to partially preheat the driving fluid of the absorption chiller, thus substantially improving the overall COP of the hybrid system. Write: Department of Energy.

PAT-APPL-967 178

Method of Making V sub 3 Ga Superconductors/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed December 6, 1978, by the Department of Energy. An improved method for producing a vanadium-gallium superconductor wire having aluminium as a component is disclosed. The wire is encased in a gallium bearing copper sheath. The superconductors may be fabricated under normal atmospheres and room temperatures by forming a

Méthode de fabrication de superconducteurs en V sub 3 Ga./296

tubular shaped billet having a core composed of an alloy of vanadium and aluminum and an outer sheath composed of an alloy of copper, gallium, and aluminum. Thereafter the entire billet is swage reduced to form a wire and heat treated to form a layer of V sub 3 Ga in the interior of the wire. Write: Department of Energy.

PAT-APPL-6-003 558

Side-Welded Fast Response Sheathed Thermocouple/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 15, 1979, by the Department of Energy. A method of fabricating the measuring junction of a grounded-junction sheathed thermocouple to obtain fast time response and good thermal cycling performance is provided. Slots are tooled or machined into the sheath wall at the measuring junction, the thermocouple wires are laser-

Thermocouple à réponse rapide sous gaine à soudure latérale/296

welded into the slots. A thin metal closure cap is then laser-welded over the end of the sheath. Compared to a conventional grounded-junction thermocouple, the response time is 4 to 5 times faster and the thermal shock and cycling capabilities are substantially improved. Write: Department of Energy.

PAT-APPL-6-021 291

Improved Magnetic Encoding Device and Method for Making the Same/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 16, 1979, by the Department of Energy. A magnetic encoding device and method for making the same are provided for use as magnetic storage media in identification control applications that give output signals from a reader that are of shorter duration and substantially greater magnitude than those of the prior art. Magnetic encoding elements are produced by uniformly bending wire or strip stock of a magnetic material longitudinally about a common radius to exceed the elastic limit of the material

Dispositif de codage magnétique amélioré et méthode de réalisation/296

and subsequently mounting the material so that it is restrained in an unbent position on a substrate of nonmagnetic material. The elements are spot weld attached to a substrate to form a binary coded array of elements according to a desired binary code. The coded substrate may be enclosed in a plastic laminate structure. Such devices may be used for security badges, key cards, and the like and may have many other applications. 7 figures. Write: Department of Energy.

PAT-APPL-6-022 896

Cure-in-Place Process for Seals/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 22, 1979, by the Department of Energy. A cure-in-place process which allows a rubber seal element to be deformed to its service configuration before it is cross-linked and, hence, is a plastic and does not build up internal stress as a result of the deformation. This provides maximum residual strength to resist the differential pressure. Furthermore, the process allows use of high modulus

Procédé de durcissement après pose pour joints/296

formulations of the rubber seal element which would otherwise crack if cured and then deformed to its service configuration, resulting in a seal which has better gap bridging capability. Basically, the process involves positioning an uncured seal element in place, deforming it to its service configuration, heating the seal element, curing it in place, and then fully seating the seal. Write: Department of Energy.

PAT-APPL-6-085 416

Method of Synthesizing Chlorozotocin/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed October 16, 1979, by the Department of Health, Educa-

Méthode de synthèse de la chlorozotocine/296

tion, and Welfare. This invention relates to a two-step method of synthesizing 2-(3- (2-chloroethyl)-3-nitrosou-

reido)-2-deoxy-D-glucopyranose by (a) reacting glucosamine hydrochloride (I) and 2-chloroethylisocyanate in alkaline aqueous milieu in the presence of sodium carbonate to produce 2-(3- (2-chloroethyl)-ureido)-2-deoxy-D-glucopyra-

nose (II), and (b) II plus NaNO₂ in the presence of 6 N HCl gives the product 2-(3- (2-chloroethyl)-3-nitrosoureido)-2-deoxy-D-glucopyranose. Write: NTIS.

PAT-APPL-6-104 983

High Resolution Electron Microscope Cold Stage/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 4, 1980, by the Department of Health, Education, and Welfare. This invention relates to electron microscopes, and, more particularly, to an improved cold stage

Étage froid pour microscope électronique à grand pouvoir séparateur/296

for an electron microscope, said cold stage being specifically designed to reduce relative motion between the sample holder and the objective lens. Write: NTIS.

PAT-APPL-6-118 969

Instrument for Measuring True-RMS AC Voltage and AC Voltage Fluctuations/296

Price per copy from NTIS: PC U.S. \$6.00/MF U.S. \$3.50, filed February 5, 1980, by the Department of Health, Education, and Welfare. This invention relates to devices for measuring fluctuations in alternating current voltage, and

Instrument de mesure de la valeur efficace vraie des tensions c.a. et des fluctuations de tension c.a./296

more particularly to instruments for measuring true-RMS line voltages, frequency and percent regulation in connection with measurements required in the testing of diagnostic X-ray equipment and similar apparatus. Write: NTIS.

PAT-APPL-6-058 658

PAT-APPL-6-079 914

Flexible Formulated Plastic Separators for Alkaline Batteries/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50 each, filed July 12, 1979, by NASA. A flexible separator for alkaline batteries is disclosed. The separator is comprised of a coating which is applied to a non-woven porous substrate such as sheets or mats of asbestos or other materials which are inert with respect to the alkaline electrolyte of the battery. The coating material is comprised of a polyphenylene oxide polymer, an organic additive and inorganic, and organic fillers which comprise 55% by volume or less of the coating material. Preferably, at least one inor-

Séparateurs de plastique souples pour des piles alcalines/296

ganic filler material which is reactive with the electrolyte is included to produce desirable pores in the coating. The organic additive is a polymeric polyester material which is hydrolyzed by the alkaline electrolyte to improve conductivity of the coating. For negotiations write: NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113.

PAT-APPL-6-122 966

Coupled Cavity Travelling Wave Tube with Velocity Tapering/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 28, 1980, by NASA. A coupled cavity travelling wave tube is described which has a velocity taper, i.e., gradual velocity reduction, which affords beam wave re-synchronization and thereby enhances efficiency. The required wave velocity reduction is achieved by reducing the resonant frequencies of the individual resonant cavities as a function of the distance from the electron gun through

Tube à ondes progressives à cavités couplées, avec réduction progressive de la vitesse des ondes/296

changes in the internal cavity dimensions. The required changes in cavity dimensions are accomplished, for example, by gradually increasing the cavity radius or decreasing the gap length from cavity to cavity. For negotiations write: NASA, Lewis Research Center, 21000 Brookpark Road, Cleveland, Ohio 44135 and send a copy of your initial correspondence to Canadian Consulate, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113.

PAT-APPL-6-122 965

Thermocouple, Multiple Junction Reference Oven/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 22, 1980, by NASA. An improved oven for maintaining the junctions of a plurality of reference thermocouples at a common and constant temperature is described. The oven is characterized by a cylindrical body defining a heat sink having an axially extended cylindrical cavity, a singularized heating element, an annular array of radially extended bores, and a temperature sensing device

Etuve de thermocouples de référence à jonctions multiples/296

seated in the axial bore for detecting temperature changes as they occur in the spool and circuit. A diagram of the oven and thermocouples is presented and the design and applications of the invention are discussed. For negotiations write: NASA, Hugh L. Dryden Flight Research Center, Edwards, California 93523 and send a copy of your initial correspondence to Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014.

PAT-APPL-6-128 229

Inorganic Spark Chamber Frame and Method of Making the Same/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 7, 1980, by NASA. A spark chamber frame includes a number of beams formed from an inorganic materials such as ceramic or glass which are connected together with an inorganic bonding material having substantially the same thermal expansion as the beam material. A number of wires also formed from an inorganic composition are positioned between opposed beams so that wires are uniformly spaced and form a grid. Four hold-down straps, also

Cadre de chambre d'étincelle en matériau inorganique et méthode de fabrication/296

formed of ceramic or glass and having substantially the same chemical and thermal properties as the beam material, overlies the wires and are bonded to the beams. For negotiations write: NASA, Goddard Space Flight Center, Mail Code: 204, Greenbelt, Maryland 20771 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-119 334

Method of Forming Dynamic Membrane on Stainless Steel Support/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 7, 1980, by NASA. A method for forming a membrane on a porous stainless steel substrate is disclosed. The stainless steel substrate is prepared from sintered, powdered stainless steel and contacted with an aqueous nitrate solution of a suitable polyvalent metal such as iron, zirconium, tin, or thorium. Contact between the substrate and the aqueous nitrate solution is maintained until the flow rate diminishes indicating that the hydrous metal oxide membrane has formed. Variables affecting the process include the applied pressure, the pore size, and the concentration of the aqueous nitrate solution. The advantage of the method is that membranes

Méthode de formation d'une membrane dynamique sur un support en acier inoxydable/296

are formed on stainless steel substrates without corroding the stainless steel. Membranes deposited on the surface of porous substrates are used in hyperfiltration to remove contaminating chemicals from aqueous solutions by reverse osmosis. Such reverse osmosis membranes are used in desalination and other water purification equipment, and may have application in textile industries for separating dyes from aqueous solvents. For negotiations write: NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 7201.

PAT-APPL-6-119 335

High Temperature Penetrator Assembly with Bayonet Plug and Ramp-Activated Lock/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 7, 1980, by NASA. A penetrator assembly adaptable to the very high temperature environment encountered in space vehicle atmospheric reentry is disclosed. Features of the assembly include a bayonet plug and a ramp activated lock, eliminating threaded surfaces which are subject to oxidation and subsequent failure. Columbium base metal with a silicide coating is used and

Ensemble pour pénétration à haute température, avec prise à baïonnette et verrou actionné par rampe/296

provision is made for safety wiring of the ramping washers against unintended rotation in place. Application of the penetrator assembly to a high temperature, pressure probe, orifice installation for a space vehicle is illustrated. For negotiations write: NASA, Lyndon B. Johnson Space Center, Mail Code: AM, Houston, Texas 77058 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201.

PAT-APPL-6-111 438**Automated Syringe Sampler/296****Échantillonneur automatisé à seringue/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 11, 1980, by NASA. The invention is housed within a housing and positionable within a test fluid medium where a pump causes continuous test fluid flow therethrough via inlet filters and a conduit. A plurality of sampling devices are disposed on a rack slidably received in the housing and are responsive to a remote signal received through an antenna to a receiver to activate circuitry elements. When activated the circuitry provides power individually, collectively or selectively to servo-

mechanisms thereby moving the actuator arm and its attached jawed bracket supporting an evacuated tube toward stationary needle. The septum is punctured by the open end of the needle contained within the protective sleeve and a sample of the fluid test medium in the conduit flows through the needle and is transferred to the tube. Write: NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-895 340**Method and Apparatus for Measuring Gas Flow Speed/296****Méthode et appareil de mesure de la vitesse d'un écoulement gazeux/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed April 11, 1978, by National Technical Information Service. A method and apparatus for measuring the speed of a gas stream, particularly suitable for use in detecting wind speed, uses the gas flow to create a negative pressure across a pressure sampling port oriented with its axis substantially perpendicular to the gas flow, the negative pressure being created by accelerating the gas flow stream lines over a surface of revolution containing the port. The negative pressure is compared with a reference pressure

by means of a pressure transducer whereby the transducer output is representative of the speed of the gas. In a preferred form, the apparatus comprises a first pressure probe in the form of a sphere mounted on a tube projecting axially from a hollow cylindrical cup-like member with the sampling port formed in the base of the sphere and the cup-like member forming a second pressure probe with a pressure tapping internally of the cup providing the source of reference pressure. Write: NTIS.

PAT-APPL-6-086 214**High Stability Commutator Bar/296****Barre de commutation haute stabilité/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed October 10, 1978, by the Department of the Navy. A means for improving the stability of rotating mechanical devices, e.g., commutators, is provided. Radial movement of a commutator bar is substantially reduced by forming

a layered bar comprising a layer of copper or copper alloy bonded explosively or otherwise to a base of high elastic modulus material such as stainless steel or steel alloy. The improved stability reduces brush wear and the onset of destructive arcing. Write: U.S. Department of the Navy.

PAT-APPL-6-094 250**Rare Earth-Iron Magnetostrictive Materials and Devices Using These Materials/296****Matériaux de magnétostriction en terres rares et fer et dispositifs utilisant ces matériaux/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 14, 1979, by the Department of the Navy. Grain-oriented polycrystalline or almost single crystal magnetostrictive materials of the general formula $Tbx Dy_{1-x} Fe_{(2-w)prim} Tb_x Ho_{1-x} Fe_{(2-w)prim} Sm_x Dy_{1-x} Fe_{(x-w)prim} Sm_x Ho_{1-x} Fe_{(2-w)prim} Tb_x Ho_y Dy_z Fe_{(2-w)prim}$ or $Sm_x Ho_y Dy_z Fe_{(2-w)prim}$ wherein $0 \leq x \leq 1$ or $0 \leq w \leq 1$ or

equal 0.20, and $x + y + z = 1$. X, Y, and z are selected to maximize the magnetostrictive effect and the magneto-mechanical coupling coefficient K33. These material may be used in magnetostrictive transducers, delay lines, variable frequency resonators, and filters. Write: U.S. Department of the Navy.

PAT-APPL-6-096 708**Buoy Anchoring System/296****Système de mouillage de bouées/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 21, 1979, by the Department of the Navy. A

buoy anchoring system includes an anchor device in the form of a weighted cannister that pays out line from the

center of a fixed, hollow-cored bale during free fall. The line is secured against further pay out after the device impacts the bottom by wrapping about a shaft that is driven upwardly within the bale by the impact. The shaft has a line

engaging cross-bar at its upper end, and is held in an extended position prior to impact by a shear pin. Write: U.S. Department of the Navy.

PAT-APPL-6-097 454

Multiple Frequency Oscillator/296

Oscillateur à fréquences multiples/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 26, 1979, by the Department of the Navy. This report describes a device for connecting plural oscillators to a single output port without the use of power dividers, switches or multiplexing filters. The plural oscillators produce multiple frequencies with only one oscil-

lator operating at a given time. The oscillators are mounted in shunt waveguide cavities along a central waveguide manifold at distances from the central waveguide manifold and waveguide end so as not to affect the operating oscillator. Write: U.S. Department of the Navy.

PAT-APPL-6-098 276

Offset-Pad Bearing/296

Appui par bloc à décentrement/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed November 28, 1979, by the Department of the Navy. A bearing pad for slidably supporting a relatively movable load-applying member. The pad comprises a face member swingably mounted on a base member and having a bearing surface laterally offset toward the leading edge from the nadir of the base member and facing the movable mem-

ber whereby the load normal to the bearing surface and frictional drag across the bearing surface both act to cause the face member to swing arcuately in the direction of movement of the moving member thereby tilting the bearing surface for trapping a wedged shaped film of lubricant between the bearing surface and the movable member. Write: U.S. Department of the Navy.

PAT-APPL-6-101 965

Flexible Linear Thermal Array/296

Réseau thermique linéaire souple/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed December 10, 1979, by the Department of the Navy. A flexible cable type of linear thermal array is constructed of a bundle of insulated conductor pairs enclosed in a braided aramid fiber strength layer through which individual pairs are withdrawn at intended thermister stations and the end

portions thereof loosely caged in the lumens of thermoplastic tubes. After an outer layer of thermoplastic fiber is braided over the bundle and tubes openings are formed through the outer layer and tubes, the wire end portions withdrawn, thermistors connected thereto and reinserted in the tube lumens. Write: U.S. Department of the Navy.

PAT-APPL-6-109 011

Insulated Gate Field-Effect Transistors/296

Transistors à effet de champ à porte isolée/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed December 31, 1979, by the Department of the Navy. An improved normally-off insulated-gate field-effect transistor capable of operation at frequencies in excess of 1 GHz, wherein the substrate is a semi-insulating semiconductor is the object of this invention. The substrate may be Fe or

Cd-doped INp or Fe or Cd-doped GaAs. Contacts for the source and drain electrodes are realized by forming n+ contacts for the n-channel device and p+ contacts for the p-channel device. Au-Sn will form n+ contacts while Au-Zn will form p+ contacts. Write: U.S. Department of the Navy.

PAT-APPL-6-109 692

Solvent Having High Flash Point/296

Solvant à haut point d'éclair/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 4, 1980, by the Department of the Navy. A high flash point solvent for dissolving a copolymer of vinylidene

fluoride and hexafluoropropylene. The solvent is comprised of acetone, methylene chloride and either amyl acetate or butyl acetate. Write: U.S. Department of the Navy.

PAT-APPL-6-113 865**Synthesis of Hexanitrobenzene/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 18, 1980, by the Department of the Navy. This invention relates to methods for preparing aryl compounds

Synthèse de l'hexanitrobenzène/296

having a multiplicity of nitro groups attached. More specifically, this invention relates to a method for the preparation of hexanitrobenzene. Write: U.S. Department of the Navy.

PAT-APPL-6-114 783**Wire Rope Lubricator Cleaner/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 24, 1980, by the Department of the Navy. This invention relates generally to lubricating and cleaning apparatus. In particular, this invention relates to an appa-

Huileur-nettoyeur de câbles d'acier/296

atus for supplying a lubricant cleaner to a wire cable so as to lubricate and clean the wire cable. Write: U.S. Department of the Navy.

PAT-APPL-6-115 631**Overlay Data Entry Device for Automated Data Systems/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed January 28, 1980, by the Department of the Navy. This report describes a device for entering data into an automated data processing system. The data for entry into the system is prepared and selected on multiple checklists where each checklist has the same format but different specific data entries. On each checklist there is also a unique black-in area. The data entry terminal or device in-

Dispositif d'entrée de données avec un calque, pour systèmes automatisés/296

cludes a transparent overlay for entry of the data into the system. The transparent overlay aligns with and is placed over the checklist from which the data to be entered is to be selected. The transparent overlay contains a first set of code numbers corresponding to each data entry and a second set of code numbers apart from the data entries. Write: U.S. Department of the Navy.

PAT-APPL-6-119 058**Optical Fiber Test Apparatus/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 8, 1980, by the Department of the Navy. Fibers, particularly optical fibers, are tested for determining their tensile strength in expected environments. A pair of sheaves, one journaled and the other fixed receive a looped length of fiber and are placed within a cylindrical shell which is filled with an expected environmental medium, such as seawater. The sheaves are pulled apart subjecting the fiber to tensile loading and a strain gauge

Appareil d'essai de fibre optique/296

provides responsive readouts so that the fiber's fatigue strength can be determined. The size of the sheaves and adhesively securing the loose ends of the fiber prevents the generation of any spurious pinching torsional stresses. Placing the fiber in the environmental fluid allows a monitoring of the effects of the fluid on the fiber's cladding and core so that the strength limits of the fiber are accurately determined under simulated operational conditions. Write: U.S. Department of the Navy.

PAT-APPL-6-122 944**Ablative-Resistant Dielectric Ceramic Articles/296**

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 20, 1980, by the Department of the Navy. A tough, ablative-resistant, dielectric ceramic material is constructed using powder metallurgy techniques. The composite comprises a boron nitride particulate phase immersed in an Al₂O₃ matrix. The boron nitride particles

Articles en céramique diélectrique résistants à l'abrasion/296

are preferably 3-5 microns in size, and create the capability of sustaining thermal strains without generating the thermal stresses that lead to material failure. The composite displays superior mechanical strength characteristics. Write: U.S. Department of the Navy.

PAT-APPL-6-122 945

A Method of Forming Thin Niobium Carbonitride Superconducting Films of Exceptional Purity/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 20, 1980, by the Department of the Navy. Thin superconducting NbCN films are deposited by reactive sputtering onto a dielectric substrate inside a vacuum chamber of 10 to the -10 Torr. The substrate is heated to a temperature of 600-1200 C, ultra-pure Argon is introduced into the chamber, and niobium is presputtered from a high-purity target onto a shutter. A cyanogen and

Méthode de formation de films minces, superconducteurs, en carbonitride de niobium de pureté exceptionnelle/296

nitrogen gas mixture is introduced into the chamber at a rate of approximately 10 to the -6 torr liters/sec, and a shutter is opened exposing the substrate to the sputtered niobium. The deposited niobium reacts with the cyanogen to form NbCN films of exceptional purity, and which exhibit superior superconductor properties. Write: U.S. Department of the Navy.

PAT-APPL-6-124 204

Regenerative CO₂ Absorbent/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 2, 1980, by the Department of the Navy. Acid gases, such as CO₂, can be extracted from a gaseous feed stream by contacting the exhausted inlet gas with an aqueous solution of 3-Amino-1,2 Propanediol, separating

Absorbant de CO₂ régénérable/296

the regenerated feed stream from the aqueous amine solution and the acid gases dissolved therein, and further separating these dissolved acid constituents from the diol solution; finally, repeating the above cycle indefinitely. Write: U.S. Department of the Navy.

PAT-APPL-6-125 005

Single Stage Twin Piston Cryogenic Refrigerator/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 27, 1980, by the Department of the Navy. A single stage, twin piston cryogenic refrigerator for cooling superconducting devices. The refrigerator uses helium as the heat transfer medium and is constructed with two nested, concentric pistons, an inner piston and an outer piston, mounted in a cylinder and driven 90% out of phase by a common crankshaft. The inner piston extends through and below the outer piston and is received in a stationary insert mounted in the cylinder. The outer piston has a first

Réfrigérateur cryogénique bipiston à un étage/296

piston face which forms a compression space with the stationary insert while the inner piston has a second piston face which forms an expansion space with the cylinder and the insert. The inner piston is formed with upper and lower piston halves joined by a flexible joint positioned in the compression space. Cylindrical regenerator gaps are present at the interface of the inner piston with the stationary insert and at the interface of the stationary insert with the cylinder. Write: U.S. Department of the Navy.

PAT-APPL-6-125 299

A Scattered-Light Imaging System/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 27, 1980, by the Department of the Navy. This document discloses a system and method of obtaining the maximum amount of information available in photographs or other objects in which the optical density is far

Système d'imagerie pour objets à réflexion diffuse/296

below normal. The system makes use of an unconventional system of illumination combined with conventional projection imaging optics to form a real image of the object using only light scattered by the individual particles which form the object. Write: U.S. Department of the Navy.

PAT-APPL-6-125 426

Ion-Implanted Evaporated Germanium Layers as n+ Contacts to GaAs/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed February 28, 1980, by the Department of the Navy. A method of forming a single, reliable n plus contact for discrete GaAs devices. A film of p-type Ge is deposited uniformly over the surface of a n-type GaAs substrate. Ions of phosphorous or arsenic are implanted to 5 times 10 to the 18th power ions/cc at a depth of 1500 Angstrom. The ends and the sides of the substrate and Ge layer are capped by a CVD oxide and annealed at 450 - 500 degrees for about one

Couches de germanium évaporé à implantation ionique pour réaliser des contacts n+ avec le GaAs/296

hour. This process over-compensates the initial p-type layers which results in the Ge layer becoming n plus. The oxide is removed by an etch process and the n plus Ge is etched to form two separate contact sections of n plus Ge. The n plus Ge is then metalized to form ohmic contacts by use of NiAu. A CVD oxide overcoat may again be applied and annealed at about 500 degrees to drive a shallow 200 - 500 angstroms, n plus germanium diffusion into the substrate. Write U.S. Department of the Navy.

PAT-APPL-6-126 772

Underwater-Mateable Electrical Connector/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 3, 1980, by the Department of the Navy. In an underwater-mateable connector system of the vented pin-and-socket type, the socket electrical contact system is composed of a contact ring cooperating with a contact band, the contact band being integrally provided with a multiplicity of resiliently deformable louvers. The pin electrical contact is composed of a rigid conductor disposed

Connecteur électrique enfichable sous l'eau/296

intermediate electrically-insulating material and is arranged to provide electrical contact with the deformable louvers of the contact band. Electrically insulating interference seals are formed on either side of the contact area when mated due to differential diameters between the pin and socket. The preferred embodiment utilizes a Multilam band (U.S. Patent 3,453,587) as the contact band. Write: U.S. Department of the Navy.

PAT-APPL-6-127 707

Direct Reading Capacitance Meter/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 6, 1980, by the Department of the Navy. This invention relates to an apparatus for measuring capacitance, especially large capacitance. The resulting measurement is displayed on a meter calibrated in capacitance. One method of determining the capacitance of a large, unknown capacitor is to charge it to a predetermined DC voltage, then discharge it through a known resistor and an SCR while observing the discharge wave form on an oscilloscope. Another method is to insert the unknown capacitor in a bridge circuit in which fixed capacitors and, in

Capacimètre à lecture directe/296

some cases, other circuit elements are provided. The present invention obviates the above mentioned prior art by providing a direct reading capacitance meter for measuring a wide range of capacitances. The invention has circuits for a voltage comparator and logic trigger, a flip-flop multivibrator, and a ramp generator. The output voltage of the ramp generator is determined by the duration interval of the input pulse, and produces a reading on a meter which is calibrated in three ranges of capacitance to provide the user with a direct reading capacitance meter. Write: U.S. Department of the Navy.

PAT-APPL-6-135 370

Combination Absolute and Differential Temperature System/296

Price per copy from NTIS: PC U.S. \$5.00/MF U.S. \$3.50, filed March 31, 1980, by the Department of Transportation. The measurement of small differential temperatures over a wide range of absolute temperatures is accomplished by cyclically switching the excitation polarity to a bridge cir-

Système à combinaison des températures absolue et différentielle/296

cuit including the temperature sensors. Additionally, the measuring circuitry includes a differential-differential amplifier configuration and a pair of compensating conductors in the cable to each sensor to achieve equal resistance in each excitation path. Write: NTIS.

Licensing Opportunities Through Dr. Dvorkovitz and Associates, U.S.

The following technologies are offered for manufacture under license in Canada. A fee is required from licensees who are successful in concluding agreements. When requesting additional information, please quote the reference number. Write: Dr. Dvorkovitz and Associates, P.O. Box 1748, Ormond Beach, Florida 32074 and send a copy of your initial correspondence to: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Instantaneous Vaporization of Alcohol and Gasohol Fuels/296

American company offers the manufacturing and marketing rights under license for its system for the instantaneous (microwave) vaporization of alcohol and gasohol fuels. The system is patented in Canada, U.S.A., France, Italy and the U.K. and has been developed to the laboratory stage. It incorporates the use of an inexpensive commercial microwave generator to resonantly couple microwave energy to the engine combustion chamber prior to and during combustion. The microwave electric field instantaneously excites the alcohol fuel electric dipole moment, thereby heating and vaporizing the alcohol. The microwave field also stimulates the flame, increasing its flame speed. This allows internal combustion engines to use alcohol fuels at low ambient temperatures. Reference number A6056.

Wood/Gas Generator System/296

American manufacturer, Forest Fuels Inc., offers optional worldwide manufacturing and marketing rights to its equipment for using wood as an efficient energy source and for developing commercial gasifiers to provide up to 20 million BTU's per hour. The equipment is suitable for retrofitting existing oil or gas fired boilers. It is also used for direct fired driers, kilns etc. Chipped or bogged to screw conveyable size (1.5 inch) 3.81 cm mesh is dried using waste stack heat. Chips are pyrolyzed in a starved air vessel, gas is conducted into boiler firebox, air is added to produce complete combustion, the process is continuous and tied into boiler demand. Used as heat sources in plants or processes in industry, institutions and public housing, the equipment is simple, presents no air emission problems, requires minimum operator attention, is produced at reasonable capital cost and allows for oil/gas standby. It uses a renewable energy source — chipped wood and processed municipal waste such as tires, pellets etc. The equipment is in production in U.S. Reference number S6693.

Possibilités d'acquisition de licences par l'intermédiaire de Dr. Dvorkovitz and Associates, É.-U.

Les techniques suivantes sont proposées pour la fabrication sous licence au Canada. Des droits seront exigés des fabricants qui parviendront à conclure un contrat de production sous licence. Lors de la demande de renseignements supplémentaires, veuillez citer le numéro de référence. Écrire à: Dr. Dvorkovitz and Associates, P.O. Box 1748, Ormond Beach (Floride) 32074 et envoyer une copie de votre correspondance initiale au Consulat général du Canada, 900 Coastal States Building, 260 Peachtree Street, Atlanta (Georgie) 30303.

Vaporisation instantanée de l'alcool pur ou mélangé à l'essence/296

Une société américaine propose des droits de fabrication et commercialisation de son système de vaporisation instantanée (par micro-ondes) de l'alcool pur ou mélangé à l'essence. Le système est breveté au Canada, aux États-Unis, en France, en Italie et au R.-U. et a été perfectionné jusqu'au niveau du laboratoire. Le système consiste à incorporer un générateur de micro-ondes commercial bon marché pour produire par résonance une énergie micro-onde dans la chambre de combustion avant et pendant l'explosion. Le champ électrique des micro-ondes excite instantanément le dipôle électrique de l'alcool, ce qui le chauffe et le vaporise. Le champ micro-ondes stimule également la flamme et accroît sa vitesse. Un tel système permettrait d'utiliser des carburants contenant de l'alcool dans des moteurs à explosion à des températures plus basses. Numéro de référence A6056.

Système au bois de production de gaz/296

Un fabricant américain, Forest Fuels Inc., offre des droits optionnels de fabrication et de commercialisation dans le monde entier de son matériel destiné à utiliser le bois comme source efficace d'énergie et à développer des gazéificateurs commerciaux produisant jusqu'à 20 millions de BTU à l'heure. Le matériel permet de convertir des chaudières fonctionnant actuellement au gaz ou à l'huile. On peut également l'utiliser directement pour des séchoirs, des fours, etc. Déchiqueté ou broyé, pour pouvoir être transporté par vis sans fin (1,5 po ou 3,8 cm), le bois est séché par les gaz d'échappement de la cheminée. Il est ensuite pyrolysé avec un minimum d'air et le gaz est envoyé à la chambre de combustion de la chaudière où de l'air est insufflé pour produire la combustion complète. Le processus est continu et peut-être adapté à la demande de la chaudière. Utilisé comme source de chaleur dans des centrales ou des procédés industriels, dans des établissements publics ou des immeubles résidentiels, le matériel est simple, ne présente pas de problèmes d'émission de polluants, exige un minimum d'attention de la part de l'opérateur, est produit à un coût raisonnable et permet de conserver l'alimentation en huile ou en gaz en cas d'ur-

gence. On peut, grâce à ce matériel, utiliser des sources d'énergie renouvelable: du bois ou des déchets municipaux traités comme les pneus, ou encore des pastilles, etc. Ce matériel est produit aux États-Unis. Numéro de référence S6693.

Underground Mine Stopping/296

American company offers worldwide licensing rights to the Bagby underground mine stopping system consisting of a yielding framework supporting a malleable aluminium skin which is sealed to the roof, walls and floor of a breakthrough between mine airways. Its purpose is to separate intake air from return air currents, or either one from neutral air in underground mines in order to provide an adequate air flow. Used mainly in underground coal mines the system provides the following advantages: a more effective seal against air loss; initial installation costs representing a savings of more than eleven percent; will not crush out under roof pressure; is reuseable or recycleable; maintenance and replacement costs are negligible; reduces work-related injuries; increases efficiency and substantially saves electricity. Degree of development: pilot stage. Reference number J6049.

Pens/296

West German company offers for licensing a two-colour writing instrument which is different from normal two-colour pens as it works without a spring and depends on variable operation by the use of half-circle shaped tubes. Mainly for use in metal pens, the system can be adapted to one colour pens with a minor change. The pens are slim (maximum 8 mm), economical to produce and operate reliably. Patent protection has been obtained in Japan, the United States and Germany. Degree of development: laboratory stage. Reference number S6123.

Self-Erecting Platform and Lift/296

American company offers a know-how license for a two column supported platform and lift with a prestressed damping system on which a U.S. patent is pending. The self-erecting prefabricated structure and onsite erecting assembly system is used for raising and lowering platforms employed as building floors or staging areas in offshore or onland work over drilling rigs and associated supports, i.e., columns and bracing structural members, etc., where fluid-filled multi-tube structural members are employed. All members remain in tension and employ unique self-locking tension cable. The entire structure is lighter and the use of fluid-filled members allows hydraulic compensation for seismic, wind or subsea lateral loading. Its main use is in buildings, bridges or other complex structures, including semi-submersible or onland oil drilling platforms where integrity under high impact loading is

Installation de cloisons d'aéragé dans les mines souterraines/296

Une compagnie américaine offre dans tous les pays des droits d'exploitation sous licence du système Bagby d'installation de cloisons d'aéragé dans les mines souterraines: celui-ci consiste à utiliser une charpente flexible supportant un revêtement malléable d'aluminium adhérent au toit, aux parois et au mur d'une recoupe d'aéragé située entre les voies d'aéragé d'une mine. Il s'agit, soit de séparer dans les mines souterraines l'air entrant des courants de retour d'air, soit de séparer l'un ou l'autre de l'air neutre, afin de fournir un flux d'air suffisant. Ce système qui est principalement utilisé dans les mines de houille, présente les avantages suivants: un cloisonnement plus efficace vis-à-vis des fuites d'air; des coûts initiaux d'installation représentant une économie supérieure à onze pour cent; ce dispositif résiste à l'écrasement sous l'effet de la pression exercée par le toit; il est réutilisable ou recyclable; les frais d'entretien ou de remplacement sont négligeables; les accidents du travail sont rendus moins fréquents; le rendement augmente et les économies d'électricité sont substantielles. Stade de développement: projet pilote. Numéro de référence J6049.

Stylos/296

Une société ouest-allemande offre une licence de commercialisation d'un stylo deux couleurs qui a les particularités suivantes: il fonctionne sans ressort et utilise des cartouches de section semi-circulaire. Destiné surtout aux stylos métalliques, le système peut facilement être modifié pour la fabrication de stylos à une seule cartouche. Ces stylos nouveau genre sont minces (largeur maximale 8mm), de fabrication économique et de fiabilité élevée. Le système est déjà breveté au Japon, aux États-Unis et en Allemagne. Stade actuel de mise au point: étude en laboratoire. Numéro de référence S6123.

Structure de plate-forme et de levage à auto-montage/296

Une compagnie américaine offre une licence de savoir-faire relative à une structure de plate-forme et de levage à deux colonnes comportant un dispositif d'amortissement précontraint pour lequel un brevet américain est en instance. Cette structure préfabriquée à auto-montage, avec son dispositif de montage sur place, sert à lever et abaisser des plates-formes utilisées comme planchers de locaux ou de travail dans les installations de forage maritimes et terrestres et les structures connexes (colonnes et éléments de contreventement, etc.) où on utilise des éléments de structure multitubulaires remplis de liquide. Tous les éléments demeurent en tension et comportent un câble de tension autobloquant de conception particulière. L'ensemble de la structure est plus léger et l'utilisation d'éléments de structure remplis de liquide permet la compensation hydraulique des charges latérales sismiques, du

desired. Advantages: permits rapid assembly or disassembly; requires very light structure; can resist high sea conditions; is stable in highly active seismic areas; can be manufactured at low cost and can be incorporated into conventional structural members or composite framing if desired. A secrecy agreement is desired to obtain confidential data. Degree of development: plans only. Reference number J6695.

Mechanical Energy Generating Devices and Components/296

Danish national laboratory offers worldwide licensing rights to a Canadian company for joint venture production in Canada with Thomas Ths. Sabroe Ltd. of Denmark of a closed Rankine-cycle system using an organic working fluid for recovery from plant site low temperature waste streams in the range of 90-150 degrees C. The system incorporates a heat recovery boiler which transfers the heat from waste heat fluid to the Rankine-cycle working fluid providing saturated or superheated vapour to the screw expander. Power is extracted in the expander and the fluid passes to the condenser which provides liquid to the feed pump. The feed pump raises the pressure and supplies fluid to the boiler which completes the cycle. Advantages: The plant is based on a screw expander having promising advantages for units up to 600 KW; high efficiency at partial load; low speed and no reducing gearbox. Degree of development: Laboratory stage. Reference number J6692.

Wooden Internal/External Walls/296

Austrian manufacturer offers worldwide licensing rights for a system of building internal and external wooden walls, fences, parapets, sheeting, etc., comprising two flat boards of the same size linked together with wooden distance plates (posts) which may be filled with insulating materials. Electric and other connections can be fixed simultaneously with the erection of the walls. Advantages: simple production; easy handling and storage; unlimited variations of elements which permit the use of materials requiring no after treatment on either internal or external walls; and the system is patented in nine countries (Canadian patent 1,050,228). Degree of development: in production. Reference number A5982.

Energy Tablet/296

German inventor offers a Canadian company the manufacturing and marketing rights to a naturally effective multi-vitamin fructose protein formulation claimed to quickly improve energy; resistivity; to eliminate bad breath; to enhance quick reaction and activate glare resistance during night driving by a richer intake of oxygen; to reduce and purge toxic substances from the body and to reduce con-

vent ou sous-marines. Les principaux domaines d'utilisation sont les ponts ou autres ouvrages complexes, y compris les plates-formes de forage semi-submersibles ou terrestres, où la résistance aux charges d'impact importantes est nécessaire. Avantages: montages: montage et démontage rapides; structure nécessaire très légère; résistance aux conditions de haute mer; stabilité en zones de grande activité sismique; fabrication économique et incorporation possible à des éléments de structure classiques ou composites. Un engagement au secret est nécessaire pour recevoir les données confidentielles. Degré de mise au point: plans seulement. N° de référence J6695.

Appareils générateurs d'énergie mécanique et éléments constitutifs/296

Un laboratoire national danois est prêt à accorder à une société canadienne les droits de production sous licence pour le monde entier, en coparticipation au Canada avec la société Thomas Ths. Sabroe Ltd du Danemark, d'un circuit fermé à cycle de Rankine utilisant un fluide organique actif pour la récupération de liquides industriels usés dont la température est comprise entre 90 et 150°C. Le circuit comprend une chaudière de récupération qui transmet la chaleur du liquide usé au fluide actif soumis au cycle de Rankine et qui alimente le détendeur à vis en vapeur saturée ou surchauffée. L'énergie est extraite dans le détendeur à vis, et le fluide traverse ensuite le condenseur qui pourvoie à la pompe d'alimentation. Cette dernière augmente la pression du fluide et alimente la chaudière, où se termine le cycle. Avantages: installation qui repose sur le principe du détendeur à vis, lequel pourrait se révéler très avantageux pour les groupes de plus de 600 kW; efficacité élevée à charge partielle; régime lent et absence de réducteur. Stade de réalisation: expérimental. Numéro de référence: J6692.

Murs de bois intérieurs et extérieurs/296

Un fabricant autrichien offre les droits d'exploitation, à l'échelle mondiale, d'un procédé de construction de murs, intérieurs et extérieurs, de clôtures, de parapets, de revêtements, etc.; il s'agit de deux panneaux de dimensions identiques, joints par des pièces de séparation (montants de bois) et qui forment un élément pouvant être rempli de matériau isolant. Les raccords électriques et autres peuvent être posés lors de montage des murs. Les avantages sont nombreux: production simple; manutention et entreposage faciles; choix illimité d'éléments permettant l'emploi de matériaux qui n'exigent aucun traitement ultérieur des murs intérieurs ou extérieurs. Par ailleurs, le procédé est breveté dans neuf pays (brevet canadien 1,050,228) et en est actuellement au stade de la production. Numéro de référence: A5982.

Produit stimulant/296

Une société allemande offre à une compagnie canadienne les droits de fabrication et de commercialisation d'un complexe vitaminé fructose-protéine à action naturelle, destiné à redonner rapidement du tonus et de la résistance, à éliminer la mauvaise haleine, à accroître la vitesse de réaction à un stimulus et à améliorer la résistance aux effets de l'éblouissement lors de la conduite de nuit, grâce à une ab-

siderably the negative effects of alcohol, tobacco, drugs, etc. if taken prior to consumption. Contains no pick up agents, can be taken by children, and diabetics (can take up to 50G without negative effect. Secrecy agreement required to obtain confidential data. Degree of development — in production in West Germany. Reference number A6357.

Herbal Mouth Freshener/296

Thai inventor offers a Canadian company a manufacturing and worldwide marketing license for a sheet or cubed mouth freshener which will dissolve in the mouth or may be chewed to freshen breath after nausea, smoking, meals, etc. This is a natural herbal product. A simple drying process can commence production. A secrecy agreement is required to obtain confidential information. Degree of development — production stage. Reference number A6354.

Odor Removing Fluid/296

Austrian inventor offers a Canadian company a manufacturing license and worldwide marketing rights (except Germany and France where the product is already in production) to produce its formulation for preventing all smell in processing meat, fish, their by-products and waste; in cold rooms of factories and ships, in washing cadavers and from faeces and sewage, and in fat, hide, bone and hair processing. Removes bad breath and perspiration odors in humans and animals. Can be used as a spray, dip, aerosol, filter steam bath additive, with and without fat, protein solutions and disinfecting agents. Is non-aggressive, easy to apply and may be used in medicine, veterinary medicine and as a body and oral non-toxic. It does not merely conceal, and is long lasting. Secrecy agreement required to obtain confidential data. Degree of development — production stage. Reference number S6357.

sorption accrue d'oxygène; à réduire et à éliminer les substances toxiques de l'organisme; et à diminuer considérablement les effets néfastes de l'alcool, du tabac, des produits pharmaceutiques, etc. si ce produit stimulant est pris au préalable. Le comprimé ne renferme aucun agent de fixation; il peut être pris par les enfants et les diabétiques (absorption maximale de 50G sans effet délétère). Le secret est nécessaire pour obtenir des données confidentielles. Stade de développement — en cours de fabrication en Allemagne de l'Ouest. Numéro de référence: A6357.

Produit aux herbes pour rafraîchir l'haleine/296

Un inventeur thaïlandais offre à une compagnie canadienne la licence de fabrication et de commercialisation d'un produit rafraîchissant l'haleine pour le monde entier; il se présente sous la forme d'une plaquette ou d'une dragée qui fond dans la bouche ou qu'on peut mâcher. On peut l'utiliser pour combattre la mauvaise haleine après avoir fumé ou mangé, après les nausées, etc. C'est un produit naturel, fabriqué à partir d'herbes, dont la fabrication débute par un simple procédé de séchage. On obtiendra des renseignements confidentiels à la condition de garantir le secret. Le produit est au stade de la fabrication. Numéro de référence: A6354.

Produit désodorisant/296

Un inventeur autrichien a offert à une compagnie canadienne la licence de fabrication et de commercialisation dans le monde entier (sauf en France et en Allemagne où l'on fabrique déjà ce produit) d'une formule désodorisante applicable aux procédés de transformation de la viande et du poisson, ainsi que de leurs sous-produits et résidus; elle pourrait en outre être utilisées dans les chambres froides des usines et des bateaux, pour le lavage des cadavres, dans les procédés de transformation des graisses, du cuir, des os et des poils et pour désodoriser les excréments et les égouts. Ce produit chasse également la mauvaise haleine et les odeurs de transpiration chez l'Homme et les animaux. On peut l'utiliser en atomiseur, sous forme de crème ou en aérosol, comme additif dans les bains de vapeur filtrants, avec ou sans graisses, solutions protéiques et désinfectants. Son effet est doux et il est facile d'emploi; on peut l'utiliser en médecine humaine et vétérinaire et l'administrer comme un produit non toxique par voie orale ou en l'appliquant sur le corps. Il fait plus que masquer les odeurs et son action est durable. On peut obtenir des informations confidentielles en garantissant le secret. Le produit est au stade de la fabrication. Numéro de référence: S6357.

Licensing Opportunities through National Research Development Corporation, England

These technologies are offered for licensing through the National Research Development Corporation, Kingsgate House, 66-74 Victoria Street, London SW1E 6SL. Please quote the executive, full title and reference number when requesting information or licensing rights on any item and send a copy of your initial correspondence to: Commercial Division, Canadian High Commission, One Gosvenor Square, London, W1X 0AB, England.

Time-encoded speech 116666*/296

Comparison of successive segments of a waveform with a stored catalogue of possible shapes provides a simple and economical method for digitising waveforms at low bit rates. For low-bit-rate digital speech (5 kb/s or less) an alphabet of from 16 to 32 shapes is required. Waveform shapes are characterised by a code which combines the quantised time duration of the segment and a descriptor related to the segment profile. For speech, symbols are generated on average at about 900 per second. NRDC contact: D R Easson

Low-power Doppler radar 114214*/296

This radar system, intended for short-range applications such as intruder alarms typically in the 10 GHz band, achieves a total power consumption of only about 1 mW through pulsed operation of the main parts of the circuit. NRDC contact: D R Easson

Precision active filter 118601*/296

A new design of low-sensitivity precision active filter has been produced which is particularly suited to bandpass filters of hybrid construction. All the chip capacitors used in the filter may be of low tolerance and a single, standard value. The design may be used for filters operating at frequencies up to at least 500 kHz. NRDC contact: J A Strutt

Possibilités d'acquisition de licences par l'intermédiaire de la National Research Development Corporation, Angleterre

Une licence peut être obtenue pour ces dispositifs, par l'intermédiaire de la National Research Development Corporation, Kingsgate House, 65-74 Victoria Street, London SW1E 6SL. Dans votre demande de renseignements ou de licence, veuillez mentionner le nom du responsable, le titre complet et le numéro de référence du dispositif. Veuillez envoyer une copie de votre lettre à la Division commerciale, Haut-commissariat du Canada, One Gosvenor Square, London, W1X 0AB, Grande-Bretagne.

Signaux vocaux codés dans le temps 116666*/296

La comparaison des segments successifs d'une onde avec les formes possibles en catalogue constitue une méthode simple et économique de numération des formes d'onde à faible débit binaire. Pour les signaux vocaux numériques à faible débit binaire (5 kb/s ou moins), un alphabet de 16 à 32 formes est nécessaire. Les formes d'onde sont caractérisées par un code qui combine la durée quantifiée du segment avec un descripteur relié au profil du segment. Pour les signaux vocaux, les symboles sont produits à un rythme d'environ 900 par seconde. Contact au NRDC: D. R. Easson.

Radar Doppler de faible puissance 114214*/296

Ce système radar, prévu pour les applications à courte distance comme les alarmes anti-intrusion, typiquement dans la bande de 10 GHz, n'a une consommation totale que d'environ 1 mW grâce au fonctionnement par impulsions des parties principales du circuit. Contact au NRDC: D. R. Easson.

Filtre actif de précision 118601*/296

Une nouvelle conception de filtre actif de précision et de faible sensibilité a été mise au point; elle est particulièrement bien adaptée à la réalisation de filtres passe-bande de construction hybride. Tous les condensateurs intégrés utilisés dans le filtre peuvent avoir une basse tolérance et une même valeur normalisée. Cette conception peut être utilisée pour des filtres fonctionnant à des fréquences pouvant aller au moins jusqu'à 500 kHz. Contact au NRDC: J. A. Strutt

Iodine lasers 117372*/296

Iodine provides a low-cost lasing medium for CW or high-energy pulsed radiation at 1.315 μm . The invention utilises a thermal method for circulating the gaseous medium without the use of moving mechanical parts. A 100 mJ 10 Hz (1 W) system has been demonstrated but with development it should be possible to obtain 100 J pulses at 10 Hz (1 kW). The overall efficiency is about 1 1/2%. NRDC contact: D R Easson

1 kHz 16 μm laser 118889*/296

This laser uses the four-wave 'Raman resonant difference mixing' (RRDM) process. The choice of lasing media enables pulse energies of millijoule order to be obtained, tunable over the two ranges 7.1 to 8.2 μm and 15.6 to 22.7 μm . Pump sources are conventional and photon conversion efficiencies of tens of percent are predicted. NRDC contact: D R Easson

High-output permanent-magnet machine 108609*/296

The rotor of this machine uses axially magnetised permanent disc magnets arranged along the rotor axis; these are separated from each other by steel discs which also form the pole pieces. This form of construction enables cheap high-coercivity materials such as barium or strontium ferrite to be used for the magnets. The stator winding is quite conventional. NRDC contact: P Thomson

Improved reluctance motors 103116*/296

New and improved designs of reluctance motor, optimized in both performance and construction, are now available as a result of further work at the University of Leeds. Motors can now be designed with ratings which, even in small integral-horsepower sizes, are the equal of those of squirrel-cage induction motors; larger reluctance motors exceed induction-motor ratings. NRDC contact: P Thomson

Solid-rotor alternator 117673*/296

An unusual design of self-excited electrical generator which eliminates the need for brushes and slip-rings through the introduction of a secondary 'magnetic booster' coil that enhances the magnetisation of a solid rotor as it rotates. NRDC contact: P Thomson

Stepping motors 111410*/296

A number of inventions are available for licensing relating to more rapid starting and stopping rates and to improved damping of stepper motors. NRDC contact: P Thomson

Lasers à iode 117372*/296

L'iode constitue un milieu peu coûteux pour l'obtention d'un rayonnement continu ou pulsé à haute énergie de 1,315 μm . L'invention fait appel à une méthode thermique de circulation du milieu gazeux sans emploi d'éléments mécaniques mobiles. On a fait la démonstration d'un système de 100 mJ à 10 Hz (1 W); des travaux de développement devraient permettre la mise au point d'un système de 100 J (1 kW) à 10 Hz. Le rendement global est environ 1 1/2%. Contact au NRDC: D R Easson

Laser 1 kHz, 16 μm 118889*/296

Ce laser fait appel à l'effet Raman stimulé à quatre ondes. Selon le choix du milieu, il est possible de produire des impulsions d'énergie de l'ordre des millijoules accordables sur deux plages allant de 7,1 à 8,2 μm et de 15,6 à 22,7 μm . Les sources de pompage sont classiques et on prévoit une conversion photonique d'un rendement de l'ordre des dizaines de pour cent. Contact au NRDC: D R Easson

Appareil de grande puissance à aimant permanent 108609*/296

Le rotor de l'appareil comprend des aimants permanents circulaires disposés sur son axe. Les aimants sont séparés par des disques qui tiennent lieu de pièces polaires. On peut ainsi utiliser des métaux peu coûteux à coercitivité élevée, comme le barium ou la ferrite de strontium, pour la fabrication des aimants. L'enroulement du stator est de conception classique. Contact au NRDC: P. Thomson

Moteurs synchrones à réluctance perfectionnés 103116*/296

Des recherches effectuées à l'Université de Leeds ont abouti à la conception de moteurs synchrones à réluctance nouveaux et améliorés autant du point de vue de la fabrication que du point de vue de la performance. Il est maintenant possible de produire des moteurs à réluctance dont les caractéristiques nominales égalent, dans le cas des petits moteurs, ou dépassent, dans le cas des moteurs plus puissants, les caractéristiques nominales des moteurs d'induction à cage d'écureuil. Contact au NRDC: P. Thomson

Alternateur à rotor massif 117673*/296

Génératrice électrique à auto-excitation de conception originale éliminant l'utilisation de balais et de bagues collectrices grâce à la mise en place d'une bobine d'induction secondaire qui favorise l'aimantation du rotor massif en rotation. Contact au NRDC: P. Thomson

Moteurs pas-à-pas 111410*/296

On peut obtenir sous licence un certain nombre d'inventions ayant pour objet l'amélioration de l'amortissement et de la rapidité des démarrages et, arrêt des moteurs pas-à-pas. Contact au NRDC: P. Thomson

Induction-motor braking system 115100*/296

A very rapid, consistent and reliable method of braking to a standstill three-phase induction motors that does not require any external power supply, since it relies on the self-generated excitation of the motor when a capacitor is connected across one of its windings to provide electrical braking. At a later stage in the braking cycle one or more of the windings are short-circuited to bring the motor to a complete standstill. NRDC contact: P Thompson

Reversing shaded-pole motor 116060*/296

The motor offers rotation in either direction from rest and can be designed to be reversible at speed. Auxiliary poles, which carry the shading rings, are used to control the direction of travel of the motor field. NRDC contact: J A Strutt

Carbon-fibre brushes 100135*/296

Carbon-fibre brushes operating on faceplate commutators can be used with micromotors, in, for example, hairdryers, with benefits of reduced cost and improved radiofrequency interference characteristics. NRDC contact: P Thompson

Linear actuator 109346*/296

An actuator having a thrust of 110 N (25 lbf) driven from a single-phase mains supply and having no rubbing electrical contacts, since its power source comprises a linear induction thrust unit. The invention uses the constituent parts of the actuator itself to provide an electrical output signal proportional to the position of the actuator. NRDC contact: P Thompson

Motor fault protection 116541*/296

A highly sensitive but reliable fault detector for the protection of induction motors. Invented at the Safety in Mines Research Establishment, the device detects faults of well below full-load current under most operating conditions by monitoring the amplitude and phase of line currents and comparing these to the expected values. It makes a high degree of protection possible for motors operating at the end of long power-supply cables of relatively high impedance. NRDC contact: J A Strutt

Travelling-wave slab heater 113796*/296

The electromagnetic flux generated by a linear induction machine is used to heat a steel slab. An experimental 500 kW double-sided unit has demonstrated the feasibility of the system. NRDC contact: P Thompson

Circuit de freinage pour moteur d'induction 115100*/296

Dispositif stable et fiable qui permet le freinage rapide des moteurs d'induction triphasés sans être alimenté de l'extérieur. Le freinage électrique est plutôt assuré par l'auto-excitation du moteur lorsqu'un condensateur est branché aux bornes d'un des enroulements. Un peu plus tard pendant le cycle de freinage, un ou plusieurs des enroulements sont court-circuités pour arrêter complètement le moteur. Contact au NRDC: P. Thompson

Moteur réversible à enroulement en court-circuit 116060*/296

Le moteur peut être mis en marche dans les deux sens. Après quelques modifications, il est possible d'inverser le sens de rotation du moteur en marche. Les masses polaires auxiliaires qui portent les spires de court-circuit contrôlent le sens du champ magnétique du moteur. Contact au NRDC: J. A. Strutt

Balais en charbon-fibre 100135*/296

Balais en charbon-fibre placés sur les collecteurs d'une plaque à contacts et pouvant être utilisés dans les micromoteurs, par exemple dans les sècheurs à cheveux, à un coût moindre et avec des caractéristiques d'interférence de haute fréquence améliorées. Contact au NRDC: P. Thompson

Actionneur linéaire 109346*/296

Actionneur ayant une poussée de 110 N (25 lb force) entraîné par une alimentation de secteur monophasée et dépourvue de contacts autonettoyants à cause du dispositif de poussée à induction linéaire que comprend la source d'alimentation. Le signal de sortie électrique proportionnel à la position de l'actionneur est produit par les éléments constitutifs mêmes de l'actionneur. Contact au NRDC: P. Thompson

Détecteur de pannes moteur 116541*/296

Détecteur de pannes très sensible et non moins fiable servant à la protection des moteurs d'induction. Mis au point au Safety in Mines Research Establishment, le dispositif détecte les diminutions d'intensité sensibles dans la plupart des conditions en relevant l'amplitude et la mise en phase du courant de ligne, puis en les comparant aux valeurs de référence. Il procure un haut degré de protection au moteur relié à de longs câbles d'alimentation à impédance relativement élevée. Contact au NRDC: J. A. Strutt

Éléments chauffants à ondes progressives pour plaque en acier 113796*/296

Le flux électromagnétique produit par un appareil à induction linéaire sert au chauffage d'une plaque en acier. Un appareil expérimental à deux faces de 500 kW a déjà démontré la faisabilité du système. Contact au NRDC: P. Thompson

Fluidised-bed contact system 115669*/296

A bed of de-oxidised copper particles is fluidised by the passage of a reducing gas. This forms a quasiliquid conductor which allows heavy currents to flow through it to a stationary or moving object. Applications investigated include electrode connections to arc furnaces, annealing of strip or wire, and resistance heating of metal billets. NRDC contact: P Thompson

Pendulum damper unit 118161*/296

Very high thin-walled chimneys oscillate because of buffet effects as well as vortex excitation. This may be reduced by an annulus suspended from the top of the chimney, the movement of which is damped by vertically positioned dampers. NRDC contact: D J Veasey

Uplift-resisting anchor 119499*/296

An anchor designed not to 'creep' upwards under cyclic loading when used for the permanent mooring of floating structures. NRDC contact: M W Jelbart

Oil containment boom 116939*/296

A boom that can be easily and quickly deployed for use in harbour and coastal areas and with oil recovery systems. NRDC contact: M W Jelbart

Towed underwater vehicle 114836*/296

An underwater vehicle that can be controlled in depth without the need of controlling winches or variation in the speed of the towing vessel. NRDC contact: M W Jelbart

Propeller duct 111135*/296

A fixed propeller duct that offers the steering capabilities of a swivelling duct without the use of a conventional rudder. It is suitable for all sizes of vessels. NRDC contact: M W Jelbart

Skip-handling mechanism (Mark II) 119211*/296

An agricultural loading apparatus using a pivoted telescopic mast. NRDC contact: H G Stirling

Crop-column slicing 118465*/296

A device for incorporating in forage machinery which will produce fine chopped grass at low power requirements, with ease of setting and maintenance. NRDC contact: H G Stirling

Contacts à lit fluidisé 115669*/296

Un lit de particules de cuivre désoxydées est fluidisé par le passage d'un gaz de réduction pour former un conducteur quasi liquide qui permet à des courants d'intensité élevée de traverser un objet fixe ou mobile. Les applications étudiées comprennent les connexions à électrode pour fournaise à arc, le recuit de feuillards ou de fils métalliques et le chauffage par résistance de billettes de métal. Contact au NRDC: P. Thompson

Amortisseur d'oscillations 118161*/296

Les cheminées très élevées à paroi mince ont tendance à osciller à cause de l'effet de tremblement et de l'écoulement tourbillonnaire de l'air. Cette oscillation peut être diminuée par la suspension d'une couronne du haut de la cheminée, dont le mouvement est amorti par des amortisseurs verticaux. Contact au NRDC: D. J. Veasey

Ancre antiredressement 119499*/296

Ancre conçue de façon à ne pas se redresser sous l'action de charges cycliques. Elle sert à l'arrimage permanent de structures flottantes. Contact au NRDC: N. W. Jelbart

Barrage flottant pour hydrocarbures 116939*/296

Barrage flottant à déploiement rapide et facile, utilisé dans les ports, le long du littoral et jumelé à des dispositifs de récupération d'huile. Contact au NRDC: M. W. Jelbart

Véhicule sous-marin remorqué 114836*/296

Véhicule sous-marin dont la profondeur de plongée peut être contrôlée sans l'utilisation d'un treuil et sans que le véhicule remorqueur n'ait à modifier sa vitesse. Contact au NRDC: M. W. Jelbart

Tunnel d'hélice 111135*/296

Tunnel d'hélice fixe qui procure la manoeuvrabilité d'un tunnel pivotant sans l'utilisation du gouvernail classique. Il peut être adapté aux bâtiments de toutes dimensions. Contact au NRDC: M. W. Jelbart

Appareil de manutention à skip (Mark II) 119211*/296

Appareil de chargement agricole avec flèche télescopique pivotante. Contact au NRDC: H. G. Stirling

Appareil de désherbage à colonne 118465*/296

Dispositif d'entretien facile et de fonctionnement simple qui, intégré à la machinerie de forage, réduit l'herbe en brins. Contact au NRDC: H. G. Stirling

Improved horizontal silo 119363*/296

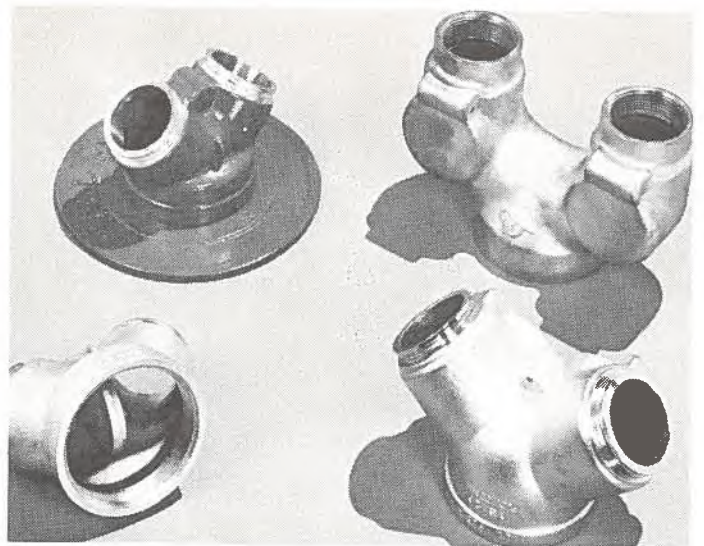
A new system for storing silage horizontally with flexible retaining walls on a collapsible framework. The framework supports an unloading mechanism which moves down as the silage level is decreased. NRDC contact: H G Stirling

Silo horizontal amélioré 119363*/296

Nouveau système d'ensilage horizontal constitué de murs flexibles retenus par une structure démontable. La structure est pourvue d'un mécanisme d'évacuation qui descend à mesure que le niveau de fourrage baisse. Contact au NRDC: H. G. Stirling

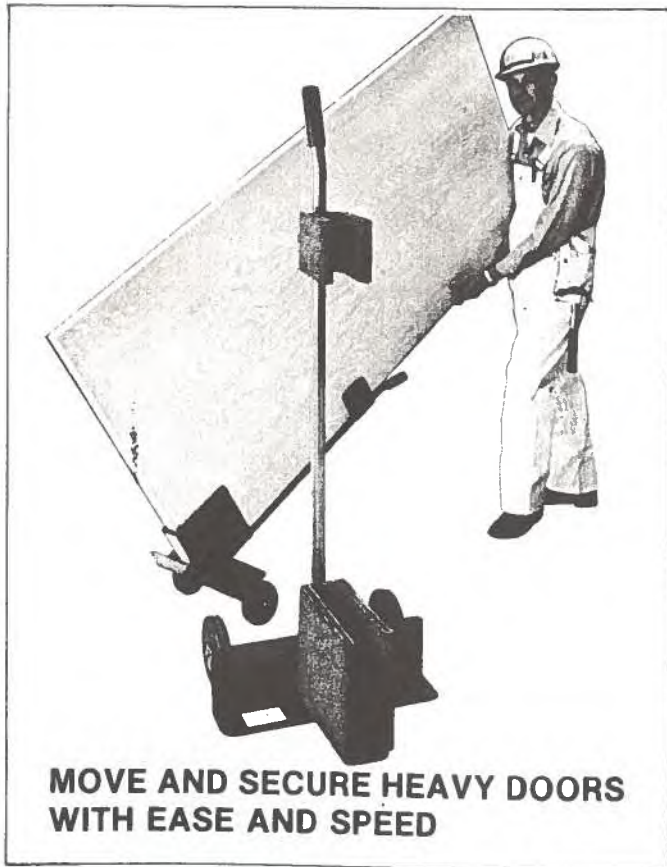
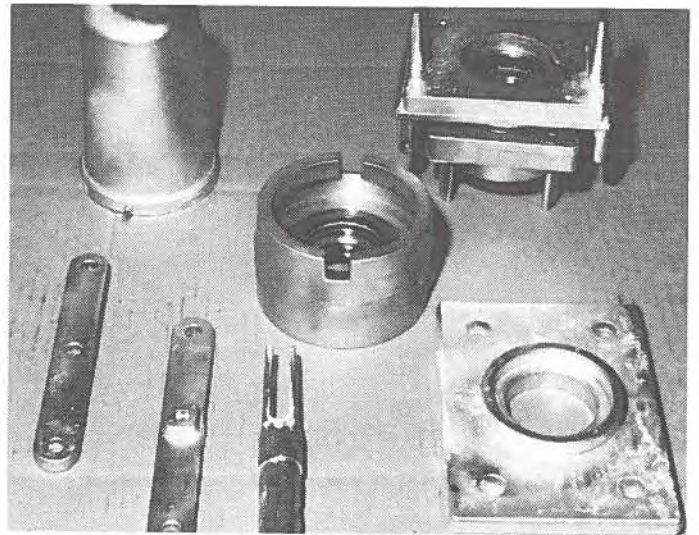


"MIGI" Automobile Body Kit (See page 4) ▲
 Kit automobile "MIGI" (voir page 4)

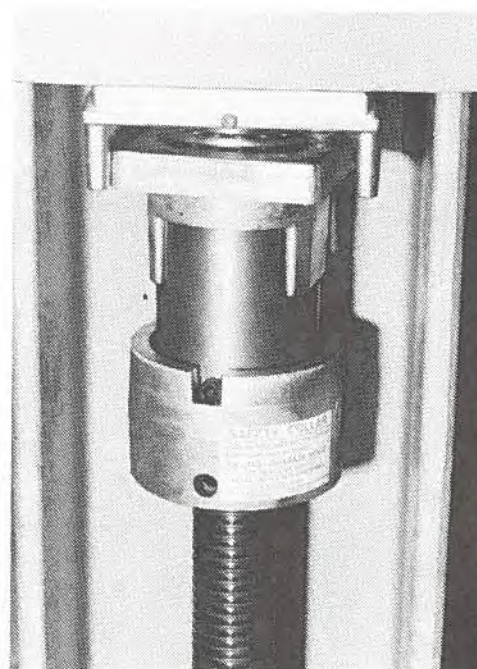


Zinc Alloy Castings (See page 3) ►
 Pièces en alliage de zinc (voir page 3)

Johnson Door Dolly (See page 9) ▼
 Diable Johnson pour portes (Voir page 9)

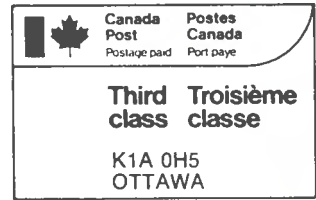


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