new products bulletin

bulletin de produits nouveaux

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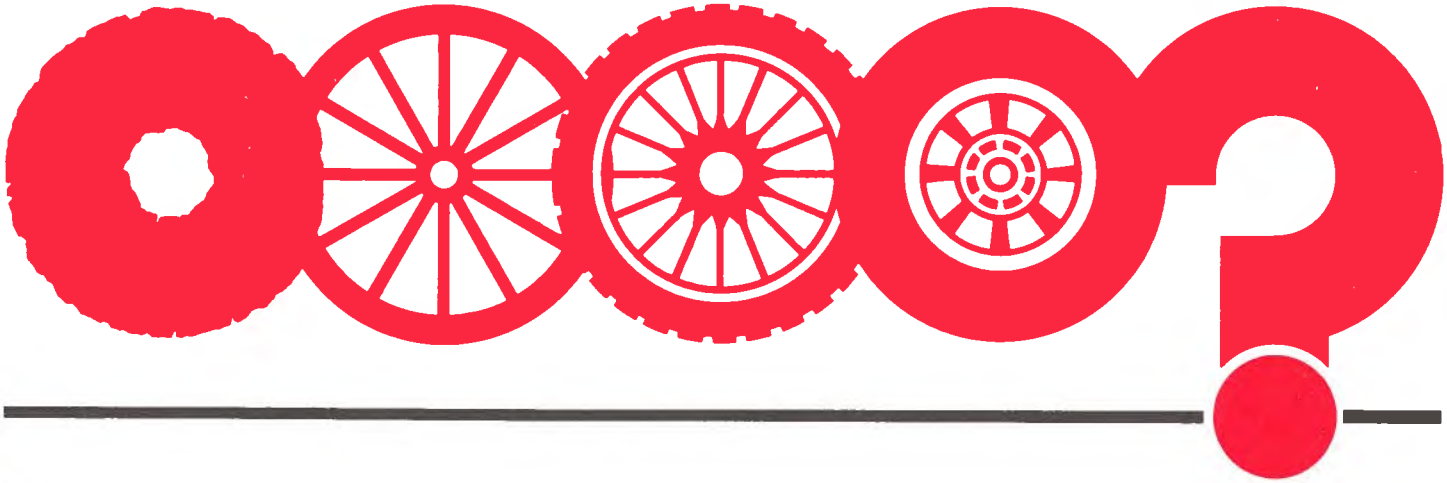

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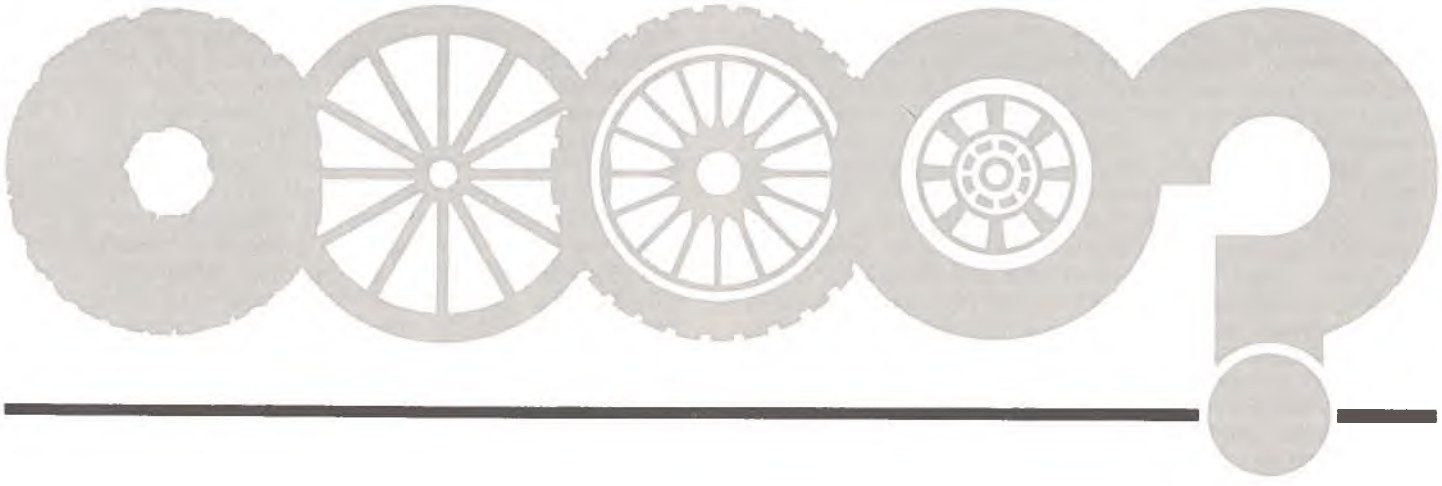
This monthly bulletin is published to inform Canadian industry of licensing and joint venture opportunities that may be investigated for the purpose of forming manufacturing affiliations. The Department cannot assume any responsibility for claims made or for transactions which ensue from the publication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

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

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

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



Glass Film/295

French inventor offers a Canadian company a license to manufacture, market and export films in thicknesses measurable in microns made of various materials such as certain metals, metallic oxides, rare earths and silicon. The glass films which are patented in 12 countries, including Canada (1,018,354), can be made to cover large areas, are so thin they can be cut with scissors, have scratch resistance superior to ordinary glass, can be bent like paper or rolled for easy transport and storage and require only simple glazier shop equipment for their application to plastic sheets. In addition, treatments, which are applied on glass by vapor deposition to give special optical properties, i.e., to make Infra Red reflecting windows, can be applied more easily to glass film at the end of their production run. This permits the reflecting layer to be placed behind the outer film which is too thin to absorb any Infra Red radiation. In this manner, the reflecting layer is not left outside to be scratched by cleaning and adverse atmospheric conditions. By applying a glass film with an adhesive such as Polyvinyl-Butyral on the two faces of transparent plastic sheet, it is claimed that a substitute glass sheet can be made which is lightweight, flexible, easily cut to size and does not break or cause wounds. An example of this feature would be in the application of the glass film to laminated glass windshields where the rear glass may throw flying fragments. The glass film is too thin to let such fragments escape from the adhesive PVC layer. The process has been laboratory tested. Cooperation in starting up a pilot plant and carrying out an economic study to ascertain worth of method and product vis-à-vis power consumption will be considered in cooperation with interested parties. Write: Mr. François-Maurice Hennequin, Kernascleden, 56540 Le Croisty, France and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, 35, Avenue Montaigne, 75008 Paris, France.

Feuil de verre/295

Un inventeur français offre à une société canadienne une licence de fabrication, de commercialisation et d'exportation de feuils, dont l'épaisseur se mesure en microns, faits de divers matériaux, notamment de certains métaux, d'oxydes métalliques, de terres rares et de silicium. L'invention est brevetée dans 12 pays, y compris au Canada (n° 1,018,354). Les feuils, réalisables en grandes surfaces, sont assez minces pour se tailler au ciseau, ont une résistance à l'abrasion supérieure à celle du verre ordinaire et peuvent, leur souplesse approchant celle du papier, être mis en rouleau pour faciliter le transport et le stockage. L'application des feuils sur du plastique en feuilles peut se faire en atelier de vitrier. Par ailleurs, les techniques de dépôt en phase gazeuse, réalisables à la sortie de la chaîne de production, permettent d'obtenir par exemple des feuils réfléchissant l'infrarouge plus facilement que dans le cas du verre. Un avantage de la méthode est que la couche réfléchissante, recouverte d'une pellicule extérieure trop mince pour absorber l'infrarouge, est protégée des produits nettoyants et des mauvaises conditions climatiques. L'inventeur prétend qu'il est possible de fabriquer un substitut de la vitre en mettant en sandwich une feuille de plastique transparent entre deux feuils de verre collés au moyen de polyvinylbutyral. Le substitut est plus léger que la vitre, plus souple, de coupe plus facile et incassable (aucun risque de blessures). Ce substitut pourrait par exemple remplacer le verre feuilleté des pare-brise dont la couche intérieure peut voler en éclats; le feuil est en effet trop mince pour éclater, l'adhésif PVB le retient en place. Le procédé a été éprouvé en laboratoire. L'inventeur serait aussi prêt à étudier la possibilité de collaborer à l'implantation d'une usine pilote et d'effectuer une étude économique pour vérifier la valeur de la méthode et du produit vis-à-vis la consommation d'énergie. Pour de plus amples renseignements, écrire à M. François-Maurice Hennequin, Kernascleden, 56540 Le Croisty, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Building Panels/295

American company offers regional or nationwide technology licenses or joint venture partnerships to Canadian manufacturers for a process for converting gypsum board into self-supporting panels for use as a demountable partition or ceiling system suitable for general use in all interior construction. The system eliminates most wood or metal framing, taping and spackling and reduces labour. Essentially the panels are fabricated from a flat sheet of gypsum panel. A precision grooving machine cuts one or more 90 degree "V" grooves parallel to the long edges through the back paper and gypsum core to the back of the face paper. By applying adhesive in the grooves and folding, "studs" are built into the panel in the case of a wall component. Similarly, beam support elements are integrated into a ceiling component. The technology license will also include patents, trade marks, know-how, sales aids, training and literature. Export marketing rights are negotiable to areas not assigned or under international package consideration. Write: Mr. James D. Kirk, Jr., President, Kirkwall Corporation, 2021 Spring Road, Suite 370, Oak Brook, Illinois 60521 and send a copy of your initial correspondence to Commercial Division, Canadian Consulate General, 316

Panneaux de construction/295

Une compagnie américaine offre à des fabricants canadiens une coparticipation à son entreprise ou des droits de licence à échelle régionale ou nationale pour un procédé de conversion des plaques de plâtre en panneaux autostables pouvant être utilisés comme panneaux de plafond ou de cloisons démontables appropriés pour des applications générales. Ce type de panneau élimine presqu'entièrement l'ossature de bois ou de métal, la nécessité de ponter les joints et de replâtrer les imperfections et réduit les coûts de main-d'oeuvre. Les panneaux sont essentiellement fabriqués à partir de plaques de plâtre planes. Une machine de précision taille une ou plusieurs rainures en 'V' de 90° à travers le papier de la face non exposée et l'âme en plâtre jusqu'au dos du papier de parement, parallèlement aux côtés longs. Dans le cas de composants muraux, des "poteaux" de plâtre sont incorporés aux panneaux en appliquant un produit adhésif dans les rainures et en pliant les panneaux. Des poutres de support sont intégrées aux panneaux de plafond de la même façon. L'offre comprend les brevets, les marques déposées et les connaissances techniques. Un service ventes, des cours de formation et de la documentation seront également fournis. Les droits

South Michigan Avenue, Suite 2000, Chicago, Illinois 60604.

de commercialisation à l'étranger peuvent être négociés pour les régions non déjà attribuées ou pour lesquelles on envisage un accord international. S'adresser à M. James D. Kirk, Jr., President, Kirkwall Corporation, 2021 Spring Road, Suite 370, Oak Brook, Illinois 60521 et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Consulat général du Canada, 316 South Michigan Avenue, Suite 2000, Chicago, Illinois 60604.

Flexible Intermediate Bulk Containers/295

United Kingdom firm offers an exclusive licence to a Canadian company to manufacture and market under the American and Canadian patents, its "Taybag" range of containers made from woven polypropylene fabric which vary in capacity from 500-2500 litres. Each container has a built-in lifting feature which does away with the need for a separate pallet or sling. The manufacturing process involves tape extrusion, weaving and sewing. Fields of application include semi-bulk transportation of all powder or granular materials and can be used in place of 25-50 kilo sacks. Its main advantages are: low cost, disposability and its suitability for transporting loose products. (See illustration page 43.) Write: Mr. D.H. McAllister, Tay Textiles Limited, Park Mill, Dundee DD1 9NA, United Kingdom and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London, W1X 0AB, England.

Conteneurs en vrac intermédiaires flexibles/295

Une compagnie du Royaume-Uni offre à une compagnie canadienne une licence exclusive pour la fabrication et la commercialisation, sous brevets américain et canadien, de son assortiment de conteneurs "Taybag" en tissu de polypropylène d'une capacité variant entre 500 et 2500 litres. Chaque conteneur comporte un dispositif de levage qui élimine tout besoin de palette ou de courroie distincte. Le procédé de fabrication comprend la production de bandes par extrusion, le tissage et la couture. Les domaines d'application: transport en semi-vrac de tous les matériaux en poudre ou granuleux et remplacement des sacs de 25 à 50 kilos. Ses principaux avantages: il est économique, facile à jeter et convient au transport d'articles non emballés. (Voir l'illustration page 43.) Écrire à M. D.H. McAllister, Tay Textiles Limited, Park Mill, Dundee DD1 9NA, Royaume-Uni et adresser une copie de votre correspondance initiale à la Division commerciale, Haut-commissariat du Canada, One Grosvenor Square, Londres, W1X 0AB, Angleterre.

Electronic Shaded-Contour Graphical Display and Measurement System/295

Canadian university licensing organization offers manufacturing, selected geographical marketing and export rights for an invention which provides a means whereby precise contour plots of one quantity, as a function of two variables which are varied continuously over specified ranges, may be displayed on an oscilloscope. The contours are, in fact, "contour bands" whose edges can be regarded as thin contour lines. The contour bands on a black background are available in white and grey, so that an increasing signal level can be distinguished from a decreasing level. Applications are to research, development, design and production testing. Any person capable of using an oscilloscope can use this feature. The device could be implemented as an add-on to an oscilloscope or line seam recorder, as a plug-in unit or as a permanent built-in feature. In the latter two cases, digital scopeface scale readout could be incorporated. The advantages are: saves time of operation in comparison with making x-y plots; saves paper and economizes on the storing of records since one photograph can contain essentially the same information as that of ten to 100 paper sheets containing x-y plots; and as contour bands never cross each other, confusion in interpretation is reduced. Patent pending. Write: Innovations Foundation, University of Toronto, 203 College Street, Suite 205, Toronto, Ontario, M5T 1P9 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario, K1A 0H5.

Système électronique d'affichage graphique de contours ombrés et de mesures/295

L'organisme des brevets d'une université canadienne offre ses services quant à la fabrication, la commercialisation et les droits d'exportation dans des régions géographiques choisies d'un dispositif nouveau permettant d'obtenir sur un oscilloscope les tracés périphériques précis d'une quantité, fonction de deux grandeurs variant continuellement dans des gammes spécifiées. Les contours sont, en fait, des bandes de contour dont les bords peuvent être considérés comme de fines lignes de contour. Les bandes de contour sont disponibles en blanc et gris sur fond noir, de façon à pouvoir distinguer un niveau de signal croissant d'un niveau décroissant. Les applications touchent la recherche, le développement, la conception et les essais de production. Toute personne capable de se servir d'un oscilloscope peut utiliser ce dispositif. Ce dernier pourrait s'employer comme appareil d'appoint d'un oscilloscope ou d'un enregistreur de lignes, comme appareil enfichable ou comme dispositif incorporé. Dans les deux derniers cas, un dispositif de lecture à échelle numérique pourrait être incorporé. Les avantages que présente ce dispositif nouveau sont: gain de temps d'exploitation par rapport aux enregistrements X-Y; économies de papier et d'emmagasinage des relevés, puisqu'une seule photographie peut contenir essentiellement les mêmes informations que celle de 10 ou 100 feuilles de papier de relevés X-Y; et, comme les bandes de contour ne se croisent jamais, les risques de confusion sont réduits lors de l'interprétation. Brevet en instance. Écrire à: Innovations Foundation, Université de Toronto, 203 College Street, suite 205, Toronto (Ont.) M5T 1P9 et envoyer une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre

Start Aid for Combustion Engine/295

Canadian inventor and agent for the patent owner, Codeco Inc., offers the Canadian manufacturing and worldwide marketing rights (except U.S.A.) for a start aid for internal combustion engines used in automobiles, boats and outboards, chain saws, lawn mowers, etc. To facilitate the start-up of an internal combustion engine, the engine includes: spark plugs, a vehicle battery containing heating means attachable to the outside of the spark plugs, a timer which cuts off the power supply to the heating means before starting the engine and leads connecting the heating means through the timer to the vehicle battery. Each spark plug has a hexagonally shaped part characterized in that each heating means comprises a metal housing containing a cylinder made of an incombustible, insulating (ceramic) material in which a heating coil is embedded, and a heating coil which is arranged on a wall of the cylinder in such a manner that the lower part of the heating coil is connected to the metal housing while the upper part is connected to a contact embedded in the cylinder. The bottom of the metal housing has a hexagonal opening matching the hexagonally shaped part of the spark plug. The chief advantages of the invention are the easy starting of a motor in damp weather and at extremely cold temperatures, particularly in situations where power to heat the battery is not available. Technical know-how is available. Canadian Patents 1,076,905 and 1,078,688. Write: Mr. Szymond Szwarcbier, 3955 St. Kevin Ave., Apt. 107, Montreal, Quebec H3T 1J1 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Reusable Plastic Connector for Non-Metallic Sheathed Cable/295

Canadian inventor offers exclusive manufacturing and marketing rights in Canada for a connector having a bushing which provides improved conductor clamping characteristics in one short easy step while still permitting the bushing and conductor clamping steps to be separated. Thus, either the connector can be removed from the entry box or the connector separated from the cable at all times. The connector will adapt to at least eight different size cables including NMD7-nylon cable. A long run production mold is available. (See illustration page 43.) Write: Mr. Denis Grégoire, 824 Child Street, P.O. Box 65, Coaticook, Quebec J1A 2S8 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Automatic Time Compensator Device/295

American inventor offers a Canadian company the total or partial control of his American patent number 4,136,513 for the manufacture, sublicensing and unrestricted sale of a split second automatic time compensator incorporating

des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ont.) K1A 0H5.

Aide au démarrage de moteur à combustion/295

En vertu des brevets canadiens 1,076,905 et 1,078,688, un inventeur canadien, agent du propriétaire du brevet, Codeco Inc., offre les droits de fabrication et de mise en marché dans le monde entier, sauf aux États-Unis, d'une aide au démarrage pour les moteurs à combustion interne qui équipent les automobiles, les bateaux, les hors-bord, les scies à chaîne, les tondeuses à gazon, etc. L'aide comprend les pièces suivantes: un dispositif de chauffage fixé à chaque bougie d'allumage, une minuterie qui coupe automatiquement le courant à ces dispositifs avant le lancement du moteur, et des fils qui relient les dispositifs à la minuterie, et la minuterie à l'accumulateur. Chaque bougie est coiffée d'une pièce hexagonale constituée comme suit: une enveloppe métallique contient un cylindre en céramique (un matériau ininflammable et isolant) dans lequel un élément chauffant est noyé. L'extrémité inférieure de l'élément est reliée à l'enveloppe, et l'extrémité supérieure, à un contact noyé dans le cylindre. Le bas de l'enveloppe est percé d'une ouverture hexagonale s'adaptant à la partie correspondante de la bougie. Les avantages de cette invention sont les suivants: démarrage plus facile par temps humide ou très froid, surtout s'il est impossible d'utiliser un chauffe-batterie (absence de prise de courant). Expérience industrielle disponible. Écrire à: M. Szymond Szwarcbier, 3955, avenue Saint Kevin, app. 107, Montréal (Québec) H3T 1J1 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 Commerce, Ottawa (Ontario) K1A 0H5.

Connecteur réutilisable en plastique pour câbles à gaine non métallique/295

Un inventeur canadien offre les droits exclusifs de fabrication et de mise en marché au Canada d'une traversée munie d'un renfort qui retient mieux les câbles électriques en place. Le pinçage du câble et la fixation de la traversée à la paroi se font séparément. Ainsi, il est possible en tout temps de retirer la traversée de la paroi (d'un tableau de distribution, par exemple) et de la détacher du câble. Cette traversée convient à au moins huit calibres de câble, ainsi qu'aux câbles NMD-7 en nylon. Un moule de production en grande série est disponible. (Voir l'illustration page 43.) Écrire à: M. Denis Grégoire, 824, rue Child, Case postale 65, Coaticook (Québec) J1A 2S8 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 Commerce, Ottawa (Ontario) K1A 0H5.

Dispositif automatique de corrosion chronométrique/295

Un inventeur américain offre à une compagnie canadienne les droits exclusifs ou partiels sur son brevet américain n° 4,136,513 pour la fabrication, le droit de sous-licence et la vente sans restriction d'un correcteur chronométrique

mechanical and electronic components which can be introduced into the movement of any watch, clock or other time-keeping or timing mechanism to produce the accuracy of Coordinated Universal Time continuously. Precision accuracy is achieved through automatic selective adjustment of the minute wheel at fixed time intervals by which the movement is slaved and synchronized with the master timepiece. Although the compensator utilizes the Coordinated Universal Time signal as a stable point of reference, selective adjustment of the minute wheel is self-actuated and independent of radio time signal reception. Its application is in time-keeping or timing mechanisms, where the compensator would enter the production line; commercial, industrial, military and space technologies; and aerodynamics, where timing accuracy may, at important points, become a critical element. Although the compensator operates independently of any manipulation by the user, manual resetting is possible. It utilizes the existing energy source in the time-keeping mechanism whether powered by batteries, springs, tuning forks, body movement, or a similar energy source. Twin adjustment compensation for either loss or gain of time in the time-keeping mechanism is provided. The compensator may be set by the manufacturer to automatically regulate the time-keeping mechanism at any time interval desired. It can be manufactured and assembled at low cost. Write: Mr. V.A. Leonard, P.O. Box 2184, Denton, Texas 76201 and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201.

automatique de haute précision (comportant des composants mécaniques et électroniques) pouvant être introduit dans le mouvement d'une montre, d'une horloge ou de tout autre mécanisme horaire ou de synchronisation pour lui donner en permanence la précision du temps universel coordonné. La correction du mécanisme d'horlogerie se fait par réglages automatiques sélectifs de la roue des minutes à intervalle fixe, le mouvement étant alors asservi à l'horloge-mère et synchronisé avec celle-ci. Bien que le correcteur prenne le temps universel coordonné comme référence stable, le réglage sélectif de la roue des minutes est autonome et ne dépend pas de la réception du signal radio de temps. Le correcteur peut trouver des applications dans les mécanismes horaires ou de synchronisation (et être installé à même la chaîne de montage) dans les domaines commercial, industriel, militaire et aérospatial ainsi qu'en aérodynamique, où la précision de la synchronisation peut être vitale dans certains cas. Bien que le correcteur fonctionne sans aucune manipulation de la part de l'utilisateur, le réenclenchement manuel est possible. Le correcteur utilise la source d'énergie du mécanisme d'horlogerie lui-même, qu'il s'agisse de piles, de ressorts, de diapasons, du mouvement du corps ou autres sources semblables. Il assure la correction dans les deux sens (avance ou retard) du mécanisme d'horlogerie. Le fabricant peut régler lui-même l'intervalle de correction automatique. Enfin, le correcteur peut être fabriqué et assemblé à peu de frais. Écrire à l'adresse suivante: Mr. V.A. Leonard, P.O. Box 2184, Denton, Texas 76201 et envoyer une copie de votre correspondance initiale au Consulat du Canada, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201.

Rescue and Safety Vest/295

American inventor offers to sell or license his Canadian Patent Number 942,264 (15 claims) to a Canadian company interested in manufacturing, and marketing (except in the U.S.A.), his verticle lift vest used wherever there is a need for verticle lifting and lowering or pulling a person in a parallel position such as in a tunnel. It is also used for safety from falling, i.e., during window washing or construction work. The vest is comprised of separate front and back sections which join together. One part includes relatively wide leg straps which encircle the legs and permit pressure to be exerted on the person's legs just under the buttocks thus distributing the lifting force over a large area and eliminating cutting pressure from straps during a fall or rescue operation. The vest can be enlarged, easily secured about the body of a person without undue movement. Hands and arms are free at all times. Also, because the lift is verticle, the front straps lay over the shoulders so that a person can be pulled in a parallel position. The straps are made of nylon webbing having quick release buckles with the actuating button recessed in the center of the buckle. Write: Mr. Stuart J. Theobald, 3206 Paul Drive, Wheaton, Maryland 20902 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Gilet de sauvetage et de sécurité/295

Un inventeur américain est disposé à vendre, ou à octroyer sous licence, son brevet canadien nº 942,264 (15 revendications) à une société canadienne désirant fabriquer et commercialiser son gilet de hissage utilisé lorsqu'il faut hisser une personne, la faire descendre, ou encore tirer cette dernière à l'horizontale comme dans un tunnel. Le gilet vise également à retenir une personne en cas de chute, par exemple, pendant le lavage de fenêtres ou les travaux de construction. Le gilet est constitué de deux parties, l'avant et l'arrière, rattachées. Une section comporte des cuissards relativement larges entourant les jambes et exerçant une pression sur ces dernières juste sous le siège de la personne, ce qui assure la répartition de la force de levage sur une grande partie et empêche la pression vive exercée sur les cuisses par les sangles pendant une chute ou une opération de sauvetage. Le gilet est réglable et s'ajuste facilement au corps de la personne sans que cette dernière n'ait à effectuer de mouvements inutiles. Les mains et les bras sont libres en tout temps. De plus, étant donné que la force de traction est exercée à la verticale, les sangles avant reposent sur les épaules de sorte qu'une personne peut être tirée à l'horizontale. Les sangles sont en toile de nylon et comportent des boucles à relâchement rapide, le bouton déclencheur étant encastré au centre de la boucle. Écrire à: M. Stuart J. Theobald, 3206 Paul Drive, Wheaton, Maryland 20902 et envoyer une copie de votre correspondance initiale au Consulat du Canada, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Diffusion Barrier Against Plasticizers . . . Surface Modification of PVC Resins by Vacuum Ultraviolet Light/295

Japanese industrial technology association offers a Canadian company a licence for a method of effectively reducing diffusion of plasticizer from plasticized PVC surfaces developed at the Research Institute for Polymers and Textiles, Tsukuba Research Center of AIST. The method involves irradiation of the PVC compound with ultra-violet light of selected wave length under controlled conditions. It is claimed that a highly cross-linked surface layer results which acts as a barrier to the diffusion of a plasticizer such as dioctyl phthalate without adverse infuence on the bulk properties of the compound. It is suggested that PVC products treated by this technique would perform satisfactorily in a number of applications including food packaging, medical devices, agriculture and construction. 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.

Barrière contre la diffusion des plastifiants . . . Modification superficielle des plastiques PVC par irradiation à la lumière ultraviolette/295

La Japan Industrial Technology Association offre à une compagnie canadienne une licence concernant une méthode pour réduire notablement la diffusion des plastifiants à travers la surface des plastiques PVC, mise au point par l'Institut de recherche sur les polymères et les textiles du Centre de recherche Tsukuba. La méthode consiste à irradier le produit en PVC avec une lumière ultraviolette de longueur d'onde bien définie, dans des conditions contrôlées. Le traitement produirait une forte réticulation de la couche superficielle qui formerait ainsi une barrière à la diffusion du plastifiant, comme le phtalate de dioctyle, sans effets néfastes sur les autres propriétés du produit. Les produits en PVC ainsi traités pourraient être avantageusement utilisés dans le conditionnement alimentaire, les instruments médicaux, l'agriculture et la construction. Écrire à: Japan Industrial Technology Association, 20 Mori Building 8F, 2-7-4 Nishi 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.

Method for Selectively Capturing Metal Ions/295

Japanese industrial technology association offers a Canadian company a licence for a method for selectively capturing metal ions by treating a solution containing ions of heavy metals, such as cupric ions, zinc ions, etc., at an adjusted pH value with a metal capturing agent comprising a condensation product of a higher fatty acid or derivative thereof with an excess of polyamine, for example, a condensation product of decanoic acid and a polyamine. Heavy metal ions contained in leached solutions of metal ores or effluents from mines and factories are selectively captured and separated according to this method. 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.

Méthode de capture sélective d'ions métalliques/295

La Japan Industrial Technology Association offre aux sociétés canadiennes l'occasion d'utiliser sous licence une méthode de capture sélective d'ions métalliques. La capture est réalisée en traitant une solution contenant des ions de métaux lourds, comme les ions cuivriques, les ions Zn^{++}, etc., et dont le pH a préalablement été réglé à une valeur donnée, avec une substance obtenue par condensation d'un acide gras à longue chaîne carbonée (ou d'un de ses dérivés) et d'une polyamine (p. ex. produit obtenu par condensation de l'acide décanoïque et d'une polyamine) en présence d'un excès de l'espèce aminée. Cette méthode permet de capturer et de séparer sélectivement les ions de métaux lourds contenus dans les solutions ayant servi à l'extraction de minerais ou d'effluents miniers et industriels. 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 la Division commerciale, Ambassade du Canada, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japon.

Biofeedback Device for Recognition of Alpha Wave Component and Muscle Potential Component/295

Japanese industrial technology association offers a Canadian company a manufacturing license for a new biofeedback device comprising a pair of electrodes for detecting the first and second filtration to separate the alpha band components (8-13 Hz) and other components from the detected potentials and for producing sounds of different frequency in response to the alpha wave and to the other waves. Firstly, when a man closes his eyes and feels relief, the alpha wave frequency which is about 10 Hz appears in his brain wave. However, when he is under stress, the alpha

Appareil de rétroaction biologique pour la séparation des ondes de la bande alpha et de celles associées aux potentiels musculaires/295

La Japan Industrial Technology Association offre à une société canadienne une licence de fabrication d'un nouvel appareil de rétroaction biologique constitué de deux électrodes de détection des potentiels encéphaliques, de deux filtres de séparation des potentiels de la bande alpha (8-13 Hz) et des autres potentiels, et de deux oscillateurs produisant des sons de différentes fréquences en réponse aux ondes détectées. Lorsqu'une personne ferme les yeux et se détend, l'onde alpha, d'une fréquence d'environ 10 Hz, apparaît dans l'onde encéphalique. Par contre, cette

wave is suppressed. With a device converting the change of the alpha wave to an associated sound, a man is expected to be able to recognize and control of his alpha wave. Increased training in the use of alpha waves has been reported for tension reduction. This procedure is frequently referred to as biofeedback. It is claimed by the licensor that current commercially available devices with a simple band pass filter have often generated the feedback signal not only by the alpha wave but also other waves. Secondly, when the subject feels relief, he hears only soft sound representing occurance of the alpha waves and then he trains himself to increase the sound. However, if the potentials detected from electrodes are contaminated by artifacts or noise, he hears unpleasant sounds. The training of artifacts is supposed to be useful in the reduction of mental stress. After the unpleasant sound disappears, the subject tends to increase alpha wave sound. 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.

Removal of Oil Floating on Water/295

Japanese industrial technology association offers a Canadian company a license for a process to manufacture mats made of mixed kapok and polypropylene fibres which can repeatedly absorb 20 times their weight in oil and permit the recovery of the absorbed oil in a centrifuged process. 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.

Thyristor Ionizator/295

Czechoslovakian research organization offers a Canadian company, experienced in the electronic circuit design of arc welding machines, technical know-how, drawings and expert assistance in the manufacturing and worldwide marketing under licence of the VUZ-TI thyristor ionizator. This device is used in the ignition and stabilization of arc welding processes and is suitable for plasma welding and cutting, manual arc and automatic arc MIG welding. Feeding to the ionizator is from 220 V/50 Hz mains. Adaptation for 120 V/60 Hz mains is possible. The ionizator is connected to the welding machine by three wires 1) to welding source/synchronization, 2) to welding nozzle, torch or electrode, 3) to material welded. Length of connecting wires can be up to 5m power consumption — 32 VA; connection to welding source — parallel; voltage range of automatic switch-off — 15 to 200 V according to preset value; dimensions — 250 x 150 x 70 mm; weight — 2 kg. Advantages claimed are: easier arc ignition at welding arc start; no direct contact of an electrode with material; stable arc burning necessary particularly in position welding; welding with AC welding current; underwater welding, etc., and, improved weld quality. Write: The Welding Research Institute, ul. Februárového vitazstva 71, 894 23 Bratislava, Czechos-

onde n'existe pas en période de stress. Si un appareil produit un type de son chaque fois qu'il enregistre l'onde alpha, on peut espérer qu'une personne en vienne à reconnaître cette situation et apprenne à contrôler la production de l'onde alpha. C'est là une technique de réduction des tensions de plus en plus considérée et que l'on appelle rétroaction biologique. Selon le détenteur du brevet, les appareils actuellement disponibles qui ne possèdent qu'un filtre passe-bande produisent souvent le signal de bande alpha pour d'autres ondes également. Avec l'appareil proposé, lorsque le sujet se détend il entend un son doux correspondant à la production de la bande alpha et il s'efforce alors d'augmenter l'intensité de ce son. Si les potentiels décélés par les électrodes sont contaminés par des courants parasites il entend des sons désagréables. En s'entraînant à réduire ces courants parasites, le sujet devrait pouvoir réduire son stress mental. Une fois les sons désagréables disparus, le sujet tend à augmenter la production des sons associés à la bande alpha. Écrire à: Japan Industrial Technology Association, 20 Mori Building, 8F, 2-7-4 Nishi Shinbashi, Minato-ku, Tokyo 105, Japan et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japon.

Enlèvement de pétrole flottant sur de l'eau/295

La Japan Industrial Technology Association, établi sur l'île de Shikoku, offre à une société canadienne la licence d'exploitation d'un procédé de fabrication de mâts réalisés à partir d'un mélange de kapok et de fibres de polypropylène. Les mâts sont réutilisables et peuvent absorber 20 fois leur poids de pétrole; la récupération du pétrole absorbé se fait par centrifugation. 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 la Division commerciale, Ambassade du Canada, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japon.

Ioniseur à thyristor/295

Un institut de recherches tchécoslovaque offre à une compagnie canadienne ayant de l'expérience dans la conception de circuits électroniques d'appareils de soudage à l'arc, le savoir-faire technique, les dessins et l'aide d'experts pour la fabrication et la commercialisation mondiale sous licence de l'ioniseur à thyristor VUZ-TI. Ce dispositif sert à l'amorçage et à la stabilisation des arcs de soudage; il peut s'utiliser pour le soudage et le coupage par plasma ainsi que le soudage à l'arc MIG manuel et automatique. L'ioniseur est alimenté par le réseau 220 V 50 Hz, avec possibilité d'adaptation au 120 V 60 Hz. L'ioniseur est raccordé au poste de soudage par trois conducteurs: le premier est branché à l'appareil de soudage (pour synchronisation), le deuxième à la buse, torche ou électrode de soudage et le troisième au matériau à souder. La longueur de ces conducteurs peut aller jusqu'à 5 mètres. Puissance absorbée: 32 VA. Branchement à l'appareil de soudage: parallèle. Tension de commutation: préréglable entre 15 et 200 V. Encombrement: 250 x 150 x 70 mm. Poids: 2 kg. Les avantages revendiqués sont les suivants: amorçage plus facile de l'arc; absence de contact direct entre l'électrode et le matériau; stabilité de l'arc (particulièrement appréciée pour le soudage en position, le soudage en courant alter-

lovakia and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Mickiewiczova 6, 125 33 Prague 6, Czechoslovakia.

Technique for Candied Fruit and Vegetables: 6053/295

Hungarian State licensing agency offers a Canadian company a licence to manufacture and export (except to East Germany and Hungary) candied fruit and vegetables. The Hungarian organization will provide a secret formula, documentation and consultation. The one-step process is claimed to take only 12-24 hours compared to conventional methods requiring five to six days, is economical, and produce such as apples, cherries, apricots, plums, peaches, bananas, pineapples, carrots, tomatoes, red beets, etc., can be chocolate coated or flavoured to variant tastes; are claimed to have great flavour; good consistancy and flexibility; and are not hard and sticky. Write: Novex Foreign Trade Co. Ltd., P.O. Box 62, H-1364 Budapest, Hungary and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Budakeszi ut 55/dP/8, 1021 Budapest, Hungary.

Welding Head for Thin-Wall Brass Tube Production/295

Russian State Licensing organization offers the licensing rights to a Canadian manufacturer for a new technique developed at the Non-ferrous Metals Working Institute (GIPRO-TSVETMETOBRABOTKA) in Moscow, for the production of thin-wall brass tubes from cold rolled strip. A new tube welding machine is provided to prepare a tube skelp in the form of coil, which is then drawn by a new tool. As a result, the rate of production of such tubes has increased three to five times. The tubes manufactured by the new technique may range from 3 to 12 mm in diameter and from 0.25 to 0.7 mm in thickness. The operating process is carried out in two stages. First, brass skelp, prepared by means of a special welding machine, is coiled into a bundle. The skelp is further formed into a tube with the aid of any conventional drawbench furnished with a specially designed drawing die and with a newly shaped floating mandrel. If required, instead of being coiled, the tube skelp is cut to lengths to be formed into tubes on a chain drawbench in two or three passes. In any event, the drawing procedure is effected without intermediate annealing operations. This makes the process efficient and profitable. The tube skelp is prepared at a rate of 15 m/min; the operating rate of the drawbench adapted to handle coiled tube skelp ranges from 10 to 20 m/sec. Write: V/O Licensintorg, 31, rue Kakhovka, 113461 Moscow, U.S.S.R. and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, 23 Starokonyushenny Pereulok, Moscow, U.S.S.R.

natif, le soudage sous l'eau, etc; meilleure qualité de la soudure. Écrire à l'adresse suivante: Institut de recherches sur le soudage, ul. Februárového vítazstva 71, 894 23 Bratislava, Tchécoslovaquie et envoyer une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Mickiewiczova 6, 125 33 Prague 6, Tchécoslovaquie.

Technique de fabrication de fruits et de légumes confits: 6053/295

La société gouvernementale hongroise des brevets offre à une société canadienne une licence de fabrication et d'exportation (ailleurs que vers l'Allemagne de l'Est et la Hongrie) de fruits et de légumes confits. La société hongroise fournira une formule secrète, de la documentation et des services de conseils. On prétend que le procédé en une étape ne prend que de 12 à 24 heures, alors que les méthodes classiques nécessitent cinq ou six jours. Le procédé est économique et permet de chocolater ou d'apprêter à diverses essences différents fruits et légumes tels la pomme, la cerise, l'abricot, la prune, la pêche, la banane, l'ananas, la carotte, la tomate, la betterave rouge, etc. Le produit obtenu est censé être ferme, tendre et non collant. Écrire à: Novex Foreign Trade Co. Ltd, C.P. 62, H-1364 Budapest, Hongrie, et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Budakeszi ut 55/dP/8, 1021 Budapest, Hongrie.

Tête de soudage pour la fabrication de tubes en laiton à parois minces/295

L'organisme russe chargé de l'octroi des licences offre à un fabricant canadien les droits d'exploitation d'une technique récemment mise au point à l'Institut GUIPROTSVETMETOBRABOTKA de Moscou, pour la fabrication de tubes en laiton à parois minces à partir de rubans laminés à froid. Une nouvelle machine à souder confectionne une ébauche en couronne qui est ensuite étirée par un nouvel outillage. En définitive, la vitesse de fabrication des tubes de ce genre a augmenté dans une proportion de trois à cinq fois. On fabrique d'après cette nouvelle technique des tubes de 3 à 12 mm de diamètre et de 0,25 à 0,7 mm d'épaisseur. L'opération se déroule en deux étapes. Tout d'abord, le ruban de laiton est façonné et soudé par une machine spéciale qui l'enroule en couronne. On donne ensuite à cette ébauche la forme tubulaire au moyen d'un banc d'étirage ordinaire pourvu d'une filière de conception nouvelle munie d'un mandrin flottant spécialement profilé. Au lieu de l'enrouler en couronne, on peut aussi découper l'ébauche en sections qui seront transformées en tubes après deux ou trois passes sur un banc d'étirage à la chaîne. Dans tous les cas l'étirage est effectué sans recuits intermédiaires, ce qui rend le procédé efficace et économique. La vitesse de fabrication de l'ébauche atteint 15 m/mn et celle de l'étirage sur le banc adéquat se situe entre 10 et 20 m/s. Écrire à: V/O Licensintorg, 31, rue Kakhovka, 113461, Moscou (URSS) et envoyer une copie de votre correspondance initiale à: Ambassade du Canada, Division commerciale, 23, Starokonyushenny Pereulok, Moscou (URSS).

Résumés of the following Canadian Patents and United States Patent applications available for licensing are published in the language of application, English or French.

Des résumés des brevets canadiens cijoints et des demandes de brevets américains pour l'octroi de licences sont publiés dans la langue de la demande de brevet, en anglais ou en français.

Patent 1,078,640

Building System and Precast Module for Use Therein/295

Système de construction et module préfabriqué utilisé dans ce système/295

The invention relates to a construction module and a building system comprising a horizontal slab section having opposed surfaces and at least one transverse support projection rigidly secured to horizontal slab section and extending a predetermined distance above the surfaces from a respective one of the opposed surfaces in a respective half-section of the horizontal slab section. The support section is also provided with an end support edge. The projection also constitutes a load supporting projection when the module is positioned in a building structure. Write: Zenon A. Zielinski, 3170 Place de Ramezay, Westmount, Quebec H3Y 2B5 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario, K1A 0H5.

Patent 1,078,682

Temperature Control Apparatus for a Monotube Boiler/295

Thermostat de chaudière monotubulaire/295

The temperature of a monotube boiler is controlled by apparatus that regulates the water flow only. Primary water is supplied to the inlet end of the boiler tube in accordance with the heat furnished to the boiler, and secondary water is injected into the boiler tube at a plurality of points spaced along the tube in accordance with the temperature of the steam as determined by a sensor located just upstream of the outlet end of the tube. One of the injection points, termed the feedback point, is located adjacent to and upstream from the temperature sensor. Feedback water injected at the feedback point has an immediate effect on the temperature sensor which is effective to maintain the steam at a substantially constant output temperature during steady state operation over a wide range in the heat furnished to the boiler, and during transient operation from one state to another caused by rapid and large changes in the heat furnished to the boiler. Write: J. Warne Carter, Sr., 4520 Weeks Park Lane, Wichita Falls, Texas 76308, U.S.A.; J. Warne Carter, Jr., P.O. Box 684, Burkburnett, Texas 76354, U.S.A. and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201, U.S.A.

Patent 1,078,907

Pompe électromagnétique à conduction pour métaux fondus présentant des impuretés/295

Conduction Electromagnetic Pump for Melted Metals Containing Contaminants/295

Pompe électromagnétique à conduction pour métaux fondus présentant des impuretés. La pompe est enrobée dans un bloc de matière réfractaire inerte en présence des métaux fondus et correspond au moins à un premier circuit magnétique à entrefer et un circuit magnétique fermé. Dans la partie inférieure de la pompe est disposé un conduit rectiligne horizontal, débouchant de part et d'autre du bloc de matière réfractaire, traversant l'entrefer du premier circuit magnétrique, relié à un conduit ascendant de pompage et entraîné par le circuit magnétique fermé. Écrire: NOVATOME Industries, 20, avenue Édouard-Herriot, 92350 Le Plessis Robinson, France et faites parvenir un exemplaire de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Patent 1,078,919

Électrolytes solides pour piles et batteries sèches/295

Solid Electrolytes for Dry Cells and Batteries/295

Matériaux à conductivité ionique élevée et dépourvu de conductivité électronique, caractérisé par la formule $A_xM_xT_{1-x}X_2$, dans laquelle *A* est constitué par du sodium, du lithium, du potassium, du rubidium ou du césium, *M* est

constitué par un métal des groupes IIIA et IIIB de la classification périodique des éléments, notamment l'aluminium, l'indium, le gallium, le thallium, le scandium, l'yttrium ou le lanthane, *T* est du zirconium, de l'hafnium ou du thorium, *X* est du soufre, du sélénium ou du tellure et *x* est compris entre 0 et 1, sa valeur étant telle que le système soit monophasé. Écrire: Compagnie Générale d'Electricité S.A., 54 rue la Boétie, 75382 Paris Cedex 08, France et faites parvenir un exemplaire de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35 Avenue Montaigne, 75008 Paris, France.

Patent 1,078,975

Sleeping Bag Expandable Shield/295

Abri extensible pour sac de couchage/295

A hollow web structure formed of telescopic segments that may be expanded to enclose an occupied sleeping bag for protection of the sleeper. Each segment of the structure is formed as a D-shaped section and fitted with latching means for retaining in the extended position. A door is rotatably fastened to one end segment and fitted with internal latching means. The bottom of each segment is fitted with angle brackets for fastening to the ground or to a floor. Write: Florence Moland, P.O. Box 67, Monticello, N.Y. 12701, U.S.A. and send a copy of your initiale correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020, U.S.A.

Patent 1,079,003

Therapeutic Feet Bathing Device/295

Bain de pieds thérapeutique/295

This therapeutic feet bathing device comprises a feet enclosure including a tub portion and a transparent hood pivoted to the tub portion, a pair of resilient sealing strips secured to the tub portion and hood respectively whereby upon closing they cooperatively and sealingly clamp the legs of the user, liquid jet nozzles impinging liquid jets against the feet, a venturi siphon T, manual valves, and piping to selectively feed liquid to the jet nozzles or drain the tub portion by suction in the venturi siphon T, a stand for the feet enclosure providing for vertical and horizontal adjustment relative to a chair for the user, and a liquid supply tank to feed a foot treatment substance and liquid to the jet nozzles. The feet are cleaned or treated all around and are positioned to enhance relaxation and comfort and the process is adapted for continuous hygienic use by preventing direct contact of the feet therein and by advantageous drainage thereof. Write: Léopold Labrecque, 1458 des Pins, C.P. 425, Rivière du Moulin, Chicoutimi, Québec G7H 1C8 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario, K1A 0H5.

Patent 1,079,106

Highway Premarking Guidance System/295

Système de guidage pour appareil à tracer les lignes sur la chaussée/295

A method and apparatus for marking a line, such as the centreline, along a roadway, using a vehicle carrying paint marking apparatus, in which a pair of television cameras, one mounted on each side of the vehicle, view the edges of the roadway and project the images onto a split screen. By keeping the images on the screen in a predetermined relationship the operator can steer the vehicle in a path along the roadway uniformly spaced from its edges. Preferably a third camera, centrally located on the vehicle, views the vanishing point of the roadway when straight and the image of the vanishing point is registered with a predetermined mark associated with the screen. Write: The Queen in the Right of the Province of Saskatchewan, Legislative Buildings, Regina, Saskatchewan, Canada and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario, K1A 0H5.

Patent 1,079,158

Method and System for Transferring Liquid Media/295

Méthode et installation de pompage d'un métal en fusion/295

A method for transferring a liquid, particularly liquid metal, from a supply to a receiver. The transfer is carried out by means of at least one suction pump located in the receiver. The outlet of the pump is covered by the liquid being pumped. A buffer zone in shape of a two phase liquid/gas zone is established and maintained between the pump and the supply and liquid from the supply is supplied to the gas phase portion of the buffer zone by discharging the liquid from liquid phase portion of the buffer zone by means of said pump. Precaution is taken that the pump outlet is covered by liquid at all time. A pumping system for transferring a liquid, particularly liquid metal, from a supply to a receiver comprising a rotary pump with a substantially vertical rotary axis, a closed buffer receptable which can be subjected to inner suction pressure and has a liquid inlet in the upper portion thereof and a liquid outlet in the lower

portion thereof, and comprising conduit means connecting the outlet of the buffer receptable with the inlet of the pump and means for connecting the inlet of the buffer receptable with the liquid supply. Write: Norsk Hydro a.s., Bygdoy Allé, Oslo 2, Norway and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Postuttak, Oslo 1, Norway.

Patent 1,079,243

Reinforced Concrete Tie with Embedded Rail Clamp Means/295

Assemblage de fixation pour traverses de voie ferrée en béton armé/295

An assembly for fastening of railroad track incorporating a steel reinforced concrete tie with vertical thread steel sleeves welded to a reinforcement truss embedded in the concrete tie to which sleeves, track bolt assemblies may be threadably joined. A track bolt assembly includes a pair of hollow male threaded plugs, each threaded to a female thread in the opposed ends of a sleeve to retain a nut that is biased by a compression spring in the sleeve, to which nut, a track screw mounted to a hold-down block is engaged. With the hold-down block fixed against a track rail flange, the screw may be tightened in the nut of the sleeve to a pre-set tensile load as determined by the compression spring. Write: Milton Schlesener, 728E Arnold St., Herington, Kansas 67449, U.S.A. and send a copy of your initial correspondence to Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201, U.S.A.

Patent 1,079,347

Saturating Time-Delay Transformer for Overcurrent Protection/295

Transformateur retardateur à saturation pour protection contre les surtensions/295

Electrical loads connected to d-c supplies are protected from damage by overcurrent in the case of a load fault by connecting in series with the load a saturating transformer that detects a load fault and limits the fault current to a safe level for a period long enough to correct the fault or else disconnect the power supply. Write: James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545, U.S.A. and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Patent 1,079,366

Welding Wire Feed Mechanism/295

Mécanisme d'alimentation en fil à souder/295

Workpieces to be joined by welding are held in juxtaposition to provide a joint location to which welding wire is to be fed. The welding wire is fed to the joint location from a passage in a welding wire feeder that is guided for movement relative to the workpieces and the joint location. As the welding wire feeder is moved relative to the joint location, welding wire passes from a groove in the feeder through an arcuate passage directed toward the joint location. During welding the feeder is moved relative to the workpieces along the weld line. The welding wire is melted at the joint location by being heated, such as by connecting a workpiece and the welding wire feeder to an electric circuit for producing a welding arc between the welding wire and the workpieces at the joint location. Write: Nova-Tech Engineering, Inc., 7907-212th Southwest, Edmonds, Washington 98020, U.S.A. and send a copy of your initial correspondence to Canadian Consulate General, 412 Plaza 600, Sixth and Stewart, Seattle, Washington 98101, U.S.A.

Patent 1,079,388

Procédé et disposition de liaisons pour raccordement d'organes/295

Method and Trunk Line Network Between Units/295

L'invention concerne le raccordement d'organes. Dispositif de raccordement d'organes minoritaires de même type de plusieurs ensembles avec d'autres organes affectés audit type et groupés sur un même ensemble. Les liaisons minoritaires ou en petit nombre provenant d'organes minoritaires de types différents sont groupés en faisceaux de renvoi, lesdites liaisons étant renvoyées par lesdits faisceaux dans une structure de câblage regroupant les liaisons des organes d'un même type sur des faisceaux de regroupement. Application aux centraux de télécommunications. Écrire: Compagnie Industrielle des Télécommunications Cit-Alcatel S.A., 12, rue de la Baume, 75008 Paris, France et faites parvenir un exemplaire de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 5, avenue Montaigne, 75008 Paris, France.

Patent 1,079,493

Salts of the Iodine Oxyacids in the Impregnation of Adsorbent Charcoal for Trapping Radioactive Methyliodide/295

Imprégnation de charbon de bois adsorbant par sels oxyacides d'iode pour la capture de l'iodure de méthyle radioactif/295

Radioactive iodine and radioactive methyliodide can be more than 99.7 per cent removed from the air stream of a nuclear reactor by passing the air stream through a two-inch thick filter which is made up of impregnated charcoal prepared by contacting the charcoal with a solution containing KOH, iodine or an iodide, and an oxyacid, followed by contacting with a solution containing a tertiary amine. Write: James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545, U.S.A. and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Patent 1,079,522

Device for Teaching Concepts of Numbers and Mathematical Principles/295

Jeu pour enseigner les concepts des nombres et des principes mathématiques/295

The device comprises a base component having a surface divided into a hundred identical unit squares in ten by ten format, and a plurality of number elements for use with a base component, each number element being dimensioned so that it corresponds exactly in size and shape with the whole number of unit squares on base component, each number element displaying unit squares corresponding to those unit squares it covers on the base component when the number element is placed on the base component, and each number element being also marked with the number which it represents in terms of the unit squares. The displaying function can be achieved either by the number elements being sufficiently transparent to allow the unit squares on the base component to be visible through the number elements, or alternatively, if the number elements are themselves opaque, then they can be marked with unit squares identical in size to those on the base component. The invention further provides boxes wherein the number elements can be stored in a manner expressive of basic arithmetical functions. Write: Hazel Walker, The Retreat, 107 Heslington Road, York, 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 1,079,684

Dispositif d'alimentation d'un électrolyseur/295

Electrolyzer Feeder/295

Dispositif d'alimentation d'un électrolyseur comportant quatre sous-ensembles juxtaposés selon une structure du type filtre-presse, ces sous-ensembles comportant chacun des électrodes accolées deux à deux, des compartiments électrolytiques étant définis entre deux groupes d'électrodes la moitié de ces électrodes étant réalisée soit en aluminium, niobium ou tantale, l'autre moitié étant confectionnée en nickel ou en carbone, de sorte qu'une électrode soit confectionnée différemment de l'électrode qui lui est accolée ou de l'électrode voisine, un générateur de courant alternatif étant connecté entre les électrodes terminales et entre le deuxième et le troisième sous-ensemble, une tension continue étant recueillie entre le premier et deuxième sous-ensemble d'une part et le troisième et quatrième sous-ensemble d'autre part. Écrire: Société Générale de Constructions Électriques et Mécaniques "Alsthom et Cie", 38, avenue Kléber, 75784 Paris Cedex 16, France et faites parvenir un exemplaire de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Patent 1,079,715

Heat Exchanger Apparatus/295

Échangeur de chaleur/295

There is provided a heat exchanger apparatus comprising a plurality of mutually identical heat exchanger coils. Each coil has the shape of a cup. The coils are placed in close relationship on both sides of a base plate which blocks a flow channel. The base plate exhibits a plurality of orifices, and a coil is placed over each orifice with its rim in contact with the base plate and surrounding the edge of the orifice, but only one coil is assigned to each orifice. Adjacent coils on opposite sides of the base plate are staggered so that their rims overlap each other without covering any part of the orifice assigned to the adjacent coil on the opposite side of the base plate. Write: Aktiebolaget Atomenergi, Liljeholmsvagen 32, Stockholm, Sweden and send a copy of your initiale correspondence to Commercial Division, Canadian Embassy, P.O. Box 16129, S-103 23 Stockholm, Sweden.

Patent 1,079,797

Dispositif pour la production ou le stockage d'électricité par transit de pâte de métal-électrolyte/295

Electricity Producing or Stocking Device/295

L'invention est relative à un dispositif pour la production ou le stockage d'électricité comprenant: un premier dispositif pour la production d'électricité par voie électrochimique par oxydation d'un métal et réduction d'un gaz contenant de l'oxygène selon un procédé où l'on fait circuler à travers un générateur une pâte constituée au départ de grains de métal et d'électrolyte, en mouvement permanent, la pâte de métal et d'électrolyte se transformant progressivement, au moins partiellement, en pâte de métal oxydé et d'électrolyte pendant la traversée du générateur, et un deuxième dispositif pour la préparation de ladite pâte à partir du métal oxydé par réduction par voie électrochimique. Parmi ses principaux avantages, l'invention permet une densité de puissance et une densité d'énergie stockée nettement plus élevée. Écrire: Société Générale de Constructions Électriques et Mécaniques Alsthom, 38 avenue Kléber, 75784 Paris Cedex 16, France et faites parvenir un exemplaire de votre correspondence initiale à la Division commerciale, Ambassade du Canada, 35 Avenue Montaigne, 75008 Paris, France.

Patent 1,079,798

Procédé de production d'électricité par transit de pâte métal-électrolyte/295

Electrical Production Process/295

L'invention est relative à un procédé de préparation d'une pâte de grains de métal et d'électrolyte et un dispositif pour la mise en oeuvre de ce procédé. Dans cette pâte, les grains de métal sont dans une proportion telle que la structure du composant métal correspond sensiblement à l'empilement géométrique maximal des grains, la quantité d'électrolyte dans la pâte étant sensiblement la quantité nécessaire pour d'une part remplir les vides subsistants entre les gains de métal et d'autre part assurer les transferts ioniques. Selon l'invention, cette pâte est préparée à partir du métal oxydé que l'on réduit par voie électrochimique. La pâte obtenue selon l'invention est notamment utilisable dans un procédé de production d'électricité par voie électrochimique. Écrire: Société Générale de Constructions Électriques et Mécaniques Alsthom, 38, avenue Kléber, 75784 Paris Cedex 16, France et faites parvenir un exemplaire de votre correspondence initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Patent 1,079,801

Générateur électrochimique sodium-soufre/295

Electrochemical Sodium-Sulphur Generator/295

Générateur électrochimique sodium-soufre comportant un réservoir cathodique contenant du soufre, un tube d'électrolyte solide étant disposé dans ce réservoir et contenant du sodium, ledit réservoir cathodique étant garni d'une bande continue d'un feutre ou tissu notamment de graphite enroulée en spirale dont l'une des extrémités est un contact avec la paroi du réservoir cathodique, au moins l'un des tours de ladite spirale étant percé d'une pluralité de trous, l'autre extrémité de la bande étant en contact soit avec le tube d'électrolyte, soit avec une grille conductrice entourant le tube et disposée à distance prédéterminée de ce dernier. Écrire: Compagnie Générale d'Électricité, 54 rue La Boétie, 75382 Paris, Cedex 08, France et faites parvenir un exemplaire de votre correspondence initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Patent 1,080,071

Barbecue Burner/295

Brûleur pour barbecue/295

An upright container, the bottom and virtually all of the side walls of the container being imperforate, except for a narrow, horizontally elongated slot near the top of one of the side walls which renders the burner particularly suitable for fast burning fuel such as paper. The barbecue is particularly suitable for outdoor activities as it can be folded and utilizes fuel of the type of old newpapers or the like, thus avoiding the need of relatively bulky and unclean conventional barbecue fuel. Write: Joseph A. Latouf, 747 St. Luke Road, Windsor, Ontario N8Y 3M3 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 1,080,092

Vertical Press for Fruits and Vegetables/295

Presse verticale pour fruits et légumes/295

There is provided a produce press including a horizontal base and a upper structure, connected to each other by a rigid vertical column. Means on the upper structure are provided for exerting a downward force with respect to the structure, and a tie means spaced from the vertical column joins the base to the structure. The tie means may be another rigid column space from the first one. A container is provided, which has a closed side wall, an open top and an open bottom. The container is filled with produce and is adapted to rest on a horizontal base. Write: Nasr A. Nasr, 96 Alfred Avenue, Willowdale, Ontario M2N 3H7 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 1,080,117

Dustfree Cutting of a Mineral Wool Web/295

Découpage de tissu de laine minérale sans production de poussière/295

A process for dustfree cutting of a mineral wool web by performing the cutting with a knife blade which has a peripherical speed in the direction of the movement of the mineral web that is somewhat higher than the velocity of the web and which knife blade has an edge of a form that has a cleaving, not a cutting and chips forming effect. Write: Paraisten Kalkki Oy — Pargas Kalk AB, SF-21600 Parainen, Finland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Pohjois Esplanadi 25B, 00100 Helsinki 10, Finland.

Patent 1,080,158

Method of Concentration of Finely Divided Materials/295

Méthode de tamisage de matériaux de fine granulométrie/295

The two stages gravity method of concentration of fine dry materials makes use of the differences in the specific gravity of the materials by using principles fairly similar to those used in wet shaking tables. The dry materials are loaded in a continuous series of troughs as they pass successively underneath a loading means as they travel conveyor belt like in a close circuit and, as they travel they are firstly submitted to a series of cyclic directed shaking motions transversal to the troughs and secondly, to a series of similar cyclic shaking motions parallel to the long axis of the troughs, the whole resulting in the production of a concentrate, and of middlings and waste which are unloaded in suitable receivers as the troughs turn downward in their conveyor belt like circuit. Write: Paul d'Aragon, 21 St-Jacques, St. Sauveur des Monts, Quebec J0R 1R0 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 1,080,193

Vertical Take-Off and Landing (VTOL) Aircraft with Fixed Horizontal Variable-Pitched Rotors/295

ADAV à voiture horizontale fixe et hélices à pas variable/295

A small jet aircraft having pitched horizontal rotor blades so to provide a vertical lift for the craft and eliminate need of a runway, the craft including conventional jet engine for horizontal flight, the rotor blades being located within openings formed through the wings. Write: Ewen M. Maclean and George Spector, 3615 Woolworth Building, New York, N.Y. 10007, U.S.A. and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020

Patent 1,080,194

Wind Driven, Rotating Aircraft Landing Wheel/295

Roues d'atterrissage d'aéronef, mues par le vent/295

A new type of landing wheels for an airplane which are automatically rotated by the wind as the airplane flies so that when making a landing the wheels are already in rotation before coming into contact with the runway; the wheels each having a set of radially extending fins that are arcuate or cupped on one side so to catch the wind. Write: Ewen M. Maclean and George Spector, 3615 Woolworth Building, New York, N.Y. 10007, U.S.A. and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020

Patent 1,080,204

Procédé d'obtention de catalyseurs électrochimiques pour la réduction de l'oxygène/295

Method of Obtaining Electrochemical Catalysts to Reduce Oxydation/295

L'invention a pour objet un procédé d'obtention de catalyseurs électrochimiques du type constitué par un film mince d'un métal noble, d'argent, de nickel ou d'un de leurs alliages déposé sur un support de graphite pyrolitique. Ce procédé est caractérisé en ce que l'on effectue électrolytiquement le dépôt de ce métal sur le support de graphite pyrolitique dans une cellule électrochimique, à partir d'une solution aqueuse contenant un sel complexe dudit métal. Les catalyseurs électrochimiques obtenus, et en particulier le catalyseur constitué par un film d'argent déposé électrolytiquement sur du graphite pyrolitique, montrent une très forte activité électrocatalytique pour la réduction de l'oxygène en solution aqueuse. Écrire: Hydro-Québec, 75 ouest, boulevard Dorchester, Montréal (Québec) H2Z 1A4 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, 235, rue Queen, Ottawa (Ontario) K1A 0H5

Patent 1,080,271

Joint d'étanchéité composite/295

Composite Gasket/295

Joint d'étanchéité composite annulaire destiné à être serré entre deux surfaces à appliquer l'une contre l'autre de façon étanche, remarquable par le fait qu'il comporte d'une part un joint métallique formé d'une âme constituée par un ressort spiral et entouré par une fourrure métallique présentant deux lèvres périphériques saillant vers l'extérieur sensiblement dans le plan médian dudit joint métallique, et d'autre part un joint torique en élastomère entourant ledit joint métallique, des éléments de liaison entre le joint torique en élastomère et le joint métallique étant prévu avec un encastrement libre entre les deux lèvres saillantes dudit joint métallique et un encastrement de type rigide dans une gorge correspondante dudit joint torique en élastomère. Application notamment au domaine de l'énergie nucléaire. Écrire: Le Joint Français, 10, rue de la Baume, 75008 Paris, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France

Patent 1,080,285

Relais électromagnétique ayant un aimant permanent et un shunt/295

Electromagnetic Relay with a Permanent Magnet and a Shunt/295

Relais électromagnétique à haute sensibilité du type comportant un aimant, deux pièces magnétiques, un shunt magnétique, une palette mobile coopérant avec les deux pièces magnétiques et une bobine de commande. L'aimant et le shunt magnétique sont enserrés entre les deux pièces magnétiques constituées par deux flasques en forme de U de façon à constituer un ensemble plat. Application dans tout système demandant une faible puissance de commande. Écrire: Société d'Appareillage Électrique Saparel S.A., 38160 Saint-Marcellin, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France

Patent 1,080,335

Input/Output Security System for Data Processing Equipment/295

Système de sécurité des entrées et des sorties pour équipement informatique/295

Data processing equipment suitable for recording details of manually connected telephone calls has a plurality of operator stations with keyboards and VDU's connected in groups to operator's control units which respond to keyed instructions to obtain data from peripheral units storing such data and for recording on magnetic tape cartridge the details of the calls. Each operator's control unit is connected to eight operator stations but is capable of handling inputs from twelve such stations. In the event of breakdown of an operator's control units the eight stations allocated to it are divided into two groups of four which are transferred to the two control units adjacent to that which has broken down. Among the criteria used to determine whether a control unit has broken down are the filling of buffer stores and the failure to perform a particular operation within a predetermined interval of time following the previous performance of that operation. Write: The Post Office, 23 Howland Street, London, W1P 6HQ, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London, W1X 0AB, England

Patent 1,080,369

Scanning Electron Microscope Micrometer Scale and Method of Fabricating Same/295

A microscopic length scale typically about 50 μm long and graduated in several intervals ranging from 1 μm to 20 μm. The scale is useful in calibrating the magnification of scanning electron microscopes (SEMs) and other electron imaging instruments. The scale comprises alternating layers of two metals deposited on a substrate. The two metals have substantially different electron emission coefficients to provide contrasting emission signals when scanned by an electron beam. One of the metals, preferably gold, is deposited in uniform layers about 40-80 μm thick. The other metal, preferably nickel, is deposited in several layers ranging from 1 μm or so thick near the substrate to 20 μm thick in the outermost layer. The resultant multilayer composite is cut into one or more samples and each sample is mounted on edge. The exposed edge is ground and metallographically polished and a microscopic indentation is made in the substrate near the first gold layer. The indentation defines a reference region, and the distances between the first gold layer and the subsequent gold layers in the reference region are measured. The measurement is made using a similar sample which was previously calibrated with the aid of a polarizing laser interferometer. Write: United States Department of Commerce, 425 Thirteenth Street, N.W., Washington, D.C. 20004, U.S.A. and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Échelle micrométrique pour microscope électronique de balayage et méthode de fabrication/295

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PAT-APPL-6-050 896

Polybutylbenzylphenols and Benzyl-3,4-Methylenedioxybenzenes in Insect Population Control/295

Utilisation de polybutylbenzylphénols et de benzyl-3,4-méthylènedioxybenzènes comme produits insecticides/295

Price per copy from NTIS: PC U.S. $6.00/MF U.S. $3.50, filed 21 June 1979, by the Department of Agriculture. Certain polybutylbenzylphenols and benzyl-3,4-methylenedioxybenzenes are useful for insect control especially as insect chemosterilants and oviposition inhibitors. The benzyl-3,4-methylenedioxybenzenes also find utility as growth inhibitors for mosquito larvae. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-099 813

Automatic Moisture Control for Roller Applicator/295

Régulation automatique du mouillage pour rouleau applicateur/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed 3 December 1979, by the Department of Agriculture. A recent innovation in herbicide application equipment for weed control of field crops is the roller applicator. This device selectively dispenses herbicide solution onto weeds protruding above crop plants by direct contact with an absorbent roller. The invention relates to a moisture control system for a contact roller-type fluid applicator which automatically maintains the fluid level on the roller surface within a predetermined range. A sensor biased against the roller continuously monitors the moisture content and signals an electronic controller to initiate sequential wetting and delay cycles when it is below a preset value. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-101 983

Device for Collecting and Transferring Particulate Material/295

Dispositif de collecte et de transfert pour substances sous la forme de particules/295

Price per copy NTIS: PC U.S. $5.00/MF U.S. $3.50, filed 10 December 1979, by the Department of Agriculture. A device and method are described for collecting and transferring particulate material. The device includes a housing with a porous member and means for connecting the housing to a vacuum attached thereto. The device and method of the invention are specifically suited for collecting and transferring adsorbent chromatographic fractions. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-109 590

Optical Wood-Bark Segregator/295

Séparateur optique d'écorce de bois/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 4, 1980, by the Department of Agriculture. The invention deals with a process of separating wood chips according to their bark content by orienting them between a light source and light detector. It then measures the amount of light transmitted through each chip, and separates the bark-laden chips from the bark-free chips on the basis of their light transmittance. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-110-864

Preparing Entomocidal Products with Oligosporogenic Mutants of 'Bacillus thuringiensis'/295

Préparation de produits entomocides à l'aide de mutants oligosporogènes de Bacillus thuringiensis/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed 9 January 1979, by the Department of Agriculture. Six oligosporogenic mutant strains obtained from Bacillus thuringiensis subsp. kurstaki yield parasporal products substantially free of interfering spores when cultivated under normal sporulation conditions. These parasporal products have utility in the biological control of pest insects. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-112 980

Biodegradable Starch-Based Blown Films/295

Pellicules biodégradables à base d'amidon obtenues par soufflage/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 17, 1980, by the Department of Agriculture. Film-forming formulations comprising starch, ethylene acrylic acid copolymer, and optionally polyethylene, can be blown into films upon neutralization of a portion of the copolymer acid functionality. The resultant biodegradable films have potential application as agricultural mulch, garbage bags, and various types of packaging. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-088 504

Acetylene Terminated Matrix and Adhesive Oligomeric Compositions/295

Composition à base d'une matrice à groupement terminal d'acétylène et d'un oligomère adhésif/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 26, 1979, by the Department of the Air Force. A composition prepared by mixing a high Tg, acetylene-terminated phenylquinoxaline oligomer with an acetylene-substituted reactive diluent. The presence of the reactive diluent in the mixture effectively lowers the Tg of the oligomer so as to provide the composition with adequate flow for melt processing. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-088 505

Reactive Diluents for Acetylene Terminated Matrix and Adhesive Resins/295

Diluants réactifs pour matrices à groupement terminal d'acétylène et pour résines adhésives/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 26, 1979, by the Department of the Air Force. Acetylene-substituted aromatic ethers having very low class transition temperatures. The compounds are useful as reactive diluents for high Tg, acetylene-terminated phenylquinoxaline oligomers. When mixed with the oli-

gomers, the resulting compositions have a lowered Tg and the necessary flow for melt processing. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-090 385

Simplified Electrical Feedthrough System for Pressurized Containers/295

Système simplifié de traversée électrique pour contenants sous pression/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 1, 1979, by the Department of the Air Force. An electrical feedthrough system for pressurized containers comprising a 'T' shaped flexible member adapted to pass through an opening in the container and an epoxy used as a secondary seal and support, a conductor passes through the 'T' shaped member which maintains a seal around the conductor, electrical connections are made to terminals at either end of the conductor. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-092 817

Slot Chevron Element for Periodic Antennas and Radomes/295

Élément à fentes en chevron pour antennes périodiques et pour radomes/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 9, 1979, by the Department of the Air Force. The present invention is directed to structural patterns for resonant windows in the RF region of the electromagnetic spectrum, which patterns are comprised of multiple chevron shaped elements. A high density of the elements is attained by interlocking elements into rows and interfacing rows into patterns readily conforming to curvilinear contours. When necessary to route lightning strikes or provide load carrying structural support, the row organization of the chevron shaped elements lends itself to retaining substantially straight intermediate paths without severely affecting the electromagnetic characteristics of the window. The ability to alter the orientation of the chevron legs in the elements while retaining the substantial character of the row configurations permits a designer to change the performance characteristics of the window without modifying its response to circularly polarized electromagnetic energy. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-097 778

Phenylmethylpolysilane Polymers and Process for Their Preparation/295

Composition et préparation de polymères de type phénylméthylpolysilane/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 27, 1979, by the Department of the Air Force. This invention relates to phenylmethylpolysilane polymers. In one aspect, it relates to a process for preparing the polymers. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-100 179

Grease Compositions/295

Compositions à graisse/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 4, 1979, by the Department of the Air Force. This invention relates to grease compositions containing additives which inhibit rust and corrosion in high humidity and high temperature environments. More specifically, the present invention is concerned with a grease composition comprising (1) a major amount of a polyfluoroalkylether base fluid, (2) a minor amount of a thickener for the base fluid, and (3) a rust and corrosion inhibiting amount of a benzimidazole. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-100 180

Grease Compositions Based on Fluorinated Polysiloxanes/295

Compositions à graisse à base de polysiloxanes fluorés/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 4, 1979, by the Department of the Air Force. This invention relates to grease compositions which have a fluorinated polysiloxane as a base fluid and containing an additive which imparts rust and corrosion resistance to the compositions. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-100 301

Fluorine-Containing Benzimidazoles/295

Benzimidazoles à teneur en fluor/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 4, 1979, by the Department of the Air Force. This invention relates to benzimidazoles which are substituted in the 2-position with perfluoroalkyleneether groups. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-100 327

Purification of Acetylene-Terminated Polylmide Oligomers/295

Purification d'oligomères de type polyimide à groupement terminal d'acétylène/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 5, 1979, by the Department of the Air Force. This invention relates to a process for purifying acetylene-terminated polyimide oligomers. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-104 924

Anti-Backlash Gear Drive/295

Engrenage sans jeu entredent/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 18, 1979, by the Department of the Air Force. In a gear train where there is backlash, the backlash is prevented by a gear drive which includes an anti-backlash driven pinion which is mounted on, or is otherwise connected to, a torsion spring shaft that is adjustable for twisting, and thereby, loading the anti-backlash driven gear. This invention pertains to an anti-backlash gear drive that is adapted for use with a gear train which includes a rotatable first driver gear (such as the drive pinion of an elevation actuator assembly in a tracking system), a movable toothed driven member (such as the elevation sector gear of such a tracking system) that is engaged with the first driver gear, and a source of rotary motion driving power (such as an electric drive motor) to which is connected a rotatable second driver gear, where the source of rotary motion driving power can be selectively activated (such as with a switch intermediate the motor and the source of electric power) and, when activated, rotates the second driver gear. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-104 925

Heat Transfer Calibration Plate/295

Plaque d'étalonnage de transfert de chaleur/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 18, 1979, by the Department of the Air Force. This invention relates to apparatus for obtaining data for determining the heat transfer coefficient for use in wind tunnel laser hardened material evaluation. In laser hardened material evaluation, material performance in flight environments is simulated by air flow over the sample surface during laser irradiation. Proper simulation of flight phenomena in the laboratory requires an accurate definition of the magnitude and distribution of the heat

transfer coefficient over the entire operating range of the wind tunnel. Experimental techniques employing layer probes to characterize the flow field have been used but these are tedious and require significant data interpretation. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-110 146

Vane Configuration for Fluid Wake Re-Energization/295

Configuration d'aubage propice à la régénération du sillage de certains fluides/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 7, 1980, by the Department of the Air Force. This invention relates to an apparatus for re-energization of the wake of a vane, such as an airfoil, to accelerate dissipation of fluid wakes. According to this invention, a vane configuration is provided for use in an axial flow compressor, a high bypass turbofan or as a turning vane in an airflow duct. The vane is provided with a crenelated trailing edge to provide counterrotating vortices to promote rapid mixing of the low momentum fluid in the vane wake with the adjacent fluid streams. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-110 889

Method and Apparatus for Analyzing Supersonic Fields by Laser Induced Fluorescence/295

Méthode et appareil d'analyse de champs supersoniques par fluorescence induite par laser/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 10, 1980, by the Department of the Air Force. This document discloses a method and apparatus for visually analyzing gaseous flow fields. A vaporous substance that fluoresces when irradiated by a particular laser beam is injected into a structure containing a flowing gas in a manner such that a uniform dispersion of the vaporous substance throughout the gas flow is achieved. The beam from a pump laser in optical communication with the gas flow pumps the ground state of the vaporous substance to an excited state and causes the vaporous substance to fluoresce in the area illuminated by the beam, thus providing a visual indication of the pattern of gas flow in the structure. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-114 541

High Absorption Coating/295

Revêtement à grande absorption/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 23, 1980, by the Department of the Air Force. A coating system characterized by a high degree of absorption of infrared energy and composed by a thin first layer of aluminum oxide, a thin, semitransparent second layer of titanium, a third dielectric layer of aluminum oxide and an opaque fourth layer of titanium. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-115 516

Composite Blade for Turbofan Engine Fan/295

Aube composite pour soufflante de turboréacteur/295

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. A turbofan engine fan blade made of composite material, and a method of making the fan, are taught. The fan blade essentially comprises an airfoil section having a root end and made of a plurality of bonded plies of composite material which are splayed and which are in a staggered condition at the root end; a two-piece platform section made of titanium or of aluminium, with one piece of the platform on each side of the airfoil section; and a steel outsert section which holds and secures the platform section to the airfoil section, with the outsert section having a triangular shaped cavity located at the root end of the airfoil section, between the splayed and staggered plies of the airfoil section. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-115 843

Metallurgical Specimen Tester/295

Appareil d'essai d'échantillons métallurgiques/295

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 plurality of cantilever beams, each fitted with a calibrated strain gage, are arranged to pivot on a corresponding plurality of upstanding pivots located near one end of each beam on a steel plate. A cylindrical specimen threaded at each end is disposed vertically between one end of each beam and the steel plate with a machined nut and socket at each end of the specimen to provide self-alignment. A self-aligning hardened steel stud is threaded into the plate and held in a hole in the other end of each of the beams with a nut and socket. A tension load is applied to the specimen by torquing the nut on the stud, with the mechanical advantage being proportional to the relative distances between the pivot and the specimen and the pivot and the stud. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-115 845

Multi-Channel Longitudinal Video Tape Recording/295

Enregistrement magnétoscopique longitudinal à plusieurs voies/295

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. The present invention is directed to an apparatus and method for its use by which a master video signal is recorded and reproduced in registry with other video signals, entailing no loss in synchronization upon reproduction irrespective of speed. Comparatively long term composite video signals are recorded on a multi-channel longitudinal tape recorder, with distinct channels of processed synchronization signals in spatial registry on the same tape. The comparatively low fundamental frequency of the vertical synchronization signal is precisely recorded and reproduced by FM processing. Spatial registry of video and synchronization signals on the longitudinal tape corresponds to perfect temporal registry upon reproduction. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-114 298

Unitized Three Leaflet Heart Valve/295

Valve cardiaque unitaire à trois feuillets/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 22, 1980, by the Department of Health, Education and Welfare. The invention relates to prosthetic devices, and, in particular, a valve useful in replacing natural heart valves. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-085 449

Copper Electrowinning and Cr + 6 Reduction in Spent Etchants Using Porous Fixed Bed Coke Electrodes/295

Extraction électrolytique et réduction du Cr^{+6} dans les solutions épuisées de décapage à l'aide d'électrodes poreuses en coke disposées en lits fixes/295

Price per copy from NTIS: PC U.S. $6.00/MF U.S. $3.50, filed October 16, 1979, by the Department of the Interior. The invention relates to the treatment of exhausted Cr(+ 6) oxidizing solutions by electrolysis. More particularly, the invention relates to the electrolysis of exhausted Cr(+ 6) solutions which contain divalent copper ions in an electrolysis cell containing carbon particle electrodes such that Cr(+ 6) and Cu(+ 2) are simultaneously reduced to Cr(+ 3) and copper metal respectively. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-085 450

Modified Sulfur Cement/295

Ciment modifié à base de soufre/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 16, 1979, by the Department of the Interior. The invention relates to a cement composition based upon compounds of sulfur with cyclopentadiene. An object of the invention is to provide a sulfur modified cement which possesses excellent strength and freeze-thaw stability characteristics. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-085 451

Combined Rotating Bed Mechanical Dust Collector and Water Droplet Eliminator/295

Dépoussiéreur mécanique et éliminateur de gouttelettes d'eau combinés à lit tournant/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 16, 1979, by the Department of the Interior. The combined air scrubber and water eliminator forming this invention can be used in conjunction with a mining machine to clean dust-laden air. The focal point of the invention is its smooth faced, air sealed rotating fibrous bed which is continuously wetted by water sprays as the to be scrubbed air is forced through it. Forming the bed is a thin, dense, uniform thickness, smooth upper surface mesh wire cloth. As the bed is rotated, centrifugal forces sling the large dust-laden water and particulates from the outer periphery of the bed to settle by gravity, or to a collection system that removes them from the working area. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-085 452

Fly Ash — Based Cement/295

Ciment à base de cendre volante/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 16, 1979, by the Department of the Interior. The patent application relates to a cement composition comprising a high calcium-content fly ash and calcium sulfate, and mortar and concrete compositions containing the cement. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-085 569

Self-Contained Closed Circuit Breathing Apparatus Having a Balanced Breathing Resistance System/295

Appareil de respiration autonome à circuit fermé doté d'un système à résistance équilibrée/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 17, 1979, by the Department of the Interior. This invention relates to a self-contained closed circuit breathing apparatus which is able to control the distribution of respiratory work between exhalation and inhalation. Balancing this breathing work load in such closed circuit breathing apparatus proves a significant physiological advantage since it is well known that balanced resistance, i.e. balanced exhalation and inhalation pressure is tolerated much better by wearers of breathing apparatus than are breathing apparatus systems which have unbalanced resistance. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-087 852

Selective Removal of Mercury From Cyanide Solutions/295

Extraction sélective du mercure de solutions de cyanures/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 24, 1979, by the Department of the Interior. The invention relates generally to the removal of mercury from industrial process solutions and, specifically, to a method for the selective removal of mercury from metal cyanide solutions such as those obtained in the process-

ing of gold ores and the like. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-090 786

Leaching Uranium Ores/295

Lixiviation de minerais d'uranium/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 2, 1979, by the Department of the Interior. Percolation leaching of uranium ores, tailing or wastes is accomplished by means of a process comprising initial agglomeration of the material by means of a binding agent and water, followed by aging and, subsequently, leaching to recover uranium values. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-097 751

Molybdenite Flotation/295

Flottation du molybdénite/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 27, 1979, by the Department of the Interior. Molybdenite (MoS_2) is recovered from copper sulfide flotation concentrates by froth flotation utilizing stream-air injection into the concentrate flotation pulp at a temperature of about 70 to 100C in the presence of activated carbon and soluble sulfide reagents. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-097 756

Siliceous Adsorbent for Heavy Metals/295

Adsorbant siliceux pour métaux lourds/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 27, 1979, by the Department of the Interior. The present invention relates generally to water purification and specifically to the removal of heavy metal ions from aqueous solutions such as industrial and municipal waste streams. For negotiations write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-113 015

Precision Heat Forming of Tetrafluoroethylene Tubing/295

Formage de précision à chaud des tubes en tétrafluoroéthylène/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 18, 1980, by NASA. A method is provided for altering the size of tetrafluoroethylene tubing which is only available in limited combination of wall thicknesses and diameter. The tetrafluoroethylene tubing is slid onto an aluminum mandrel to which the ends of the tubing are clamped. The tubing and mandrel are placed in a supporting coil which is then positioned in an insulated steel pipe. The steel pipe is normally covered with a fiber glass insulator to smooth out temperature distribution therein. The entire structure is then placed in an oven which heats the tetrafluoroethylene tubing and shrinks it to the outer dimension of the aluminum mandrel. After cooling, the aluminum mandrel is removed from the newly sized tetrafluoroethylene, tubing by a conventional chemical milling process. 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-6-098 569

Multi-Channel Temperature Measurement Amplification System/295

Système d'amplification à plusieurs voies pour la mesure des températures/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 29, 1979, by NASA. A multichannel temperature amplification system for solar energy applications is presented. Differential thermocouple outputs are sequen-

tially amplified by a common amplifier and compared with a reference temperature signal in an offset correction amplifier. A poled output signal is provided when a differential output is of a discret level. For negotiations write: NASA, Marshall Space Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial correspondence to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

PAT-APPL-6-098 570

Solar Energy Control System/295

Système de régulation de l'éclairage/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 29, 1979, by NASA. A solar energy control system for a hot air type solar energy heating system wherein thermocouples are arranged to sense the temperature of a solar collector, a space to be heated, and a top and bottom of a heat storage unit is described. Pertinent thermocouples are differentially connected together, and these are employed to effect the operation of dampers, a fan, and an auxiliary heat source. In accomplishing this, the differential outputs from the thermocouples are amplified by a single amplifier by multiplexing techniques. Additionally, the amplifier is corrected as to offset by including as one multiplex channel a common reference signal. For negotiations write: NASA, Marshall Space Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial correspondence to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

PAT-APPL-6-111 436

Magnetic Field Control/295

Régulateur à champ magnétique/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 11, 1980, by NASA. A torque control an electromechanical torquing device of a type where a variable clearance occurs between a rotor and field is presented. A Hall effect device senses the field present, which would vary as a function of spacing between field and rotor, and the output of the Hall effect device controls the power applied to the field so as to provide a well-defined field and thus a controlled torque to the rotor which is well defined. For negotiations write: NASA, Marshall Space Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial correspondence to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

PAT-APPL-6-079 913

Means for Controlling Aerodynamically Induced Twist/295

Dispositif de compensation de la torsion aérodynamique/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed September 28, 1979, by NASA. A wing twist deformation control mechanism which provides active compensation for aerodynamically induced twist deformation of high aspect ratio wings is described. The twist deformation control mechanism consists of a torque tube, internal to each wing and rigidly attached near the tip of each wing, and an actuator located in the aircraft fuselage. As changes in the aerodynamic loads on the wings occur, the torque tube is rotated to compensate for the induced wing twist. For negotiations 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-6-092 142

Aluminum Ion-Containing Polyimide Adhesives/295

Adhésifs à base de polyimide contenant des ions d'aluminium/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 7, 1979, by NASA. A method is described for preparing an aluminum ion-filled polyimide adhesive. A meta-oriented aromatic diamine is reacted with an aromatic dianhydride and an aluminum compound in the presence of a water or lower alkanol miscible ether solvent to produce an intermediate polyamic acid. The polyamic acid is converted to the thermally stable, metal ion-filled polyimide by heating in the temperature range of 300 C to produce a flexible, high temperature adhesive. For negotiations 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-6-096 257

Continuous Self-Locking Spiral Wound Seal/295

Joint spiralé continu à autoblocage/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 20, 1979, by NASA. A spiral wound seal for effecting a seal between two surfaces is described. The seal consists of a strip of gasket material wound into a groove machined into one of the surfaces. The gasket strip is wider than the groove is deep such that a portion of the gasket material protrudes from the groove. The seal is effected by clamping the second surface onto the first surface and thereby compressing the protruding gasket material. For negotiations 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-6-098 567

Precision Reciprocating Filament Chopper/295

Coupe-fil alternatif de précision/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 29, 1979, by NASA. A chopper for cutting multifilament line is described in which the pull-pull motion of a double edged sliding blade driven by dual solenoids, provides a chop on each motion. The line is fed by a pair of rollers one of which is driven. The chopped line length and chop rate are independently controlled. A jet airstream is provided to dispense chopped lengths of line. For negotiations 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-916 423

Solid Compositions for Generation of Gases Containing a High Percentage of Hydrogen or its Isotopes/295

Préparations solides pour produire des gaz riches en hydrogène ou en isotopes du 1 H/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed June 16, 1979, by the Department of the Navy. Solid compositions which, when heated to initiate the reaction between the components of the compositions, generate gases containing a high percentage of hydrogen or hydrogen isotopes. The compositions comprise mixtures of certain metal powders and certain ammonium or hydrazinium salts. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-953 510

Electronic Breathing Mixture Control/295

Régulation électronique du mélange à respirer/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 23, 1979, by the Department of the Navy. An electronic breathing mixture control system which senses and controls the oxygen component partial pressure of an underwater breathing mixture. Three oxygen sensors disposed within a mix chamber generate voltages proportional to the oxygen partial pressure in the mixture. These voltages are processed and compared with reference voltages using digital logic circuitry. The resulting processed signals control two light emitting diodes warning the user of improper oxygen partial pressure and in addition control a switch that actuates an oxygen valve which either restricts oxygen flow to the mix chamber or allows more oxygen to flow therein. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-048 878

Mass-Transport Separator for Alkaline Nickel-Zinc Cells/295

Séparateur à transport de masse pour piles alcalines Ni/Zn/295

Price per copy from NTIS: PC U.S. $6.00/MF U.S. $3.50, filed June 15, 1979, by the Department of the Navy. A mass-transport separator for use in alkaline nickle-zinc cells which comprises a barrier layer of a microporous mem-

brane which contains a laminate of a material having a hydrogen over-potential in alkaline solution which is lower than that of zinc, the barrier layer being sandwiched between two protective layers of microporous polyolifin material. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-056 767

Reversible Plasticizer for Solid State Deformation Processes/295

Plastifiant réversible pour procédés de traitement avec déformation de semi-conducteurs/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed July 12, 1979, by the Department of the Navy. Ammonia is utilized as a reversible plasticizer in the deformation of thermoplastic polyamides so as not to degrade the mechanical properties of the deformed material. It may be retained in the material under pressure and/or low temperature during extrusion or other deformation processes and is spontaneously released with time and at reduced pressure and/or elevated temperature at the end of the process, such as at the exit side of an extrduer die. (Author) For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-056 769

MHD Pinch Interrupting Switch for High Currents/295

Interrupteur à effet de pincement magnétohydrodynamique pour courants très intenses/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed July 2, 1979, by the Department of the Navy. Switching apparatus for very high currents utilizes the magneto hydrodynamic pinch effect to interrupt a liquid metal column that occupies the gap between a pair of spaced conductors maintained apart by an insulating sleeve. The on/off condition of the switching apparatus is controlled by regulating the relationship between the fluid pressure within the sleeve and P sub p, the MHO pinch pressure. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-062 835

Integrated Wheelchair and Ambulator/295

Fauteuil roulant et ambulateur intégrés/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed August 1, 1979, by the Department of the Navy. An integrated ambulator and wheelchair is provided to enable a paraplegic to stand on the ambulator and be separated from the wheelchair for maneuvering in confined spaces. The ambulator has power operated articulated linkage for raising the paraplegic out of and free of the wheelchair to the standing position on the ambulator; the compact base of the ambulator containing a drive mechanism for moving the ambulator in any desired direction through controls conveniently located on an arm rest. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-070 073

Production of Antibody Toward Asbestos/295

Production d'un anticorps à l'amiante/295

Price per copy from NTIS: PC U.S. $6.00/MF U.S. $3.50, filed August 27, 1979, by the Department of the Navy. The invention provides a reaction product of chrysotile asbestos with an antigenic serum protein, preferably albumin, that has particular utility as an antigen in producing antibody to asbestos. The reaction product of asbestos with an antigenic serum protein also can be used in a method for producing an antibody toward asbestos by immunizing a laboratory animal with the reaction product, of asbestos and a serum protein, allowing it to remain in the blood of the animal for a sufficient period of time and thereafter recovering antibody globulins from the laboratory animal. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-070 239

Multi-Layer Ram Air Parachute Canopy/295

Voilure à double membrane de parachute à air dynamique/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed August 27, 1979, by the Department of the Navy. Maximum lifting force is achieved in a dome-shaped parachute by fabricating the canopy of upper and lower spaced canopy membranes. A plurality of circumferentially spaced, radially disposed, flexible rib sections are connected between the canopy membranes to form a plurality of ram air cells, each cell having a ram air inlet port at the canopy hem, and a ram air outlet port at a central vent at the canopy apex. The rib sections can be provided with porous sections to equalize the ram air pressure between adjacent cells. The bottom canopy wall in each ram air cell may also be provided with a porous section for admitting the positive air beneath the canopy into each cell. A pull down vent line can be connected to the canopy apex for changing the chamber or angle of attack, and therefor the parachute drag. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-071 886

Rubber Boot Expander/295

Extenseur pour gaine caoutchoutée/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed September 4, 1979, by the Department of the Navy. The expander system is utilized for installation and removal of a rubber boot over an underwater transducer. The installation system comprises a vacuum tank, adjusting sleeves, boot spreader and C clamps. The rubber boot is expanded at both ends by means of the boot spreader and then is expanded along its sidewall in a radial direction by means of a differential pressure created by pulling a vacuum on the outside surface of the rubber boot. The boot is then slipped on the transducer. For removal of the boot a short handled hook tool is used in place of the boot spreader. The method again includes pulling a vacuum on the outside surface of the rubber boot so the boot expands enabling the removal of the transducer. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-076 896

Pivotable Cable Guard for Retaining a Swingable — Movable Cable/295

Protège-câble de retenue pivotant pour câble mobile et basculant/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed September 19, 1979, by the Department of the Navy. The guard retains the cable on a pulley of a cable control system that includes another pulley mounted on a pivotable radius arm for swingable movement relative to it. Usually, the swingable pulley is linked to a third pulley mounted on a hinged structural member which itself swings with the radius arm to and from 'closed' and 'open' positions. When the arc is wide, i.e. around 180 deg., conventionally mounted guards engage and bind the swinging cable. The present guard is an elongate member pivotally mounted on the radius arm. In the 'closed' position, a retaining flange formed on the guard moves for cable retaining purposes into close proximity with the fixed pulley and the proximity or clearance can be adjustably fixed and locked by an eccentric stop. During the 'opening' swing, the cable engages the guard which then pivots sufficiently to prevent the undesired binding. The pivotal range of the guard is restricted by a pin and slot arrangement. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-078 251

Intense Electron Beam Microwave Switch/295

Commutateur hyperfréquence à faisceau électronique intense/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed September 24, 1979, by the Department of the Navy. Microwave energy is coupled into an elongate waveguide having a rectangular main cavity with a lateral branch forming a T section. An intense beam of electrons is generated in the rectangular cavity at a particular location relative to the T to reflect incident microwave energy and produce a standing wave. Quarter wavelength spacing of the beam from the T positions either a wave node or antinode at the T. Preferably, in its 'open' state, accumulated microwave energy is released as a high power output pulse by establishing an antinode at the T. Alternately, a node at the T produces a normally 'closed' state. In all arrangements, the beam of electrons, which traverses the central portion of the narrow dimension of the rectangular cavity in a direction parallel to the electrical field of its microwave energy,

is of sufficient electron density to assure the desired reflection and produce the interference pattern. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-078 402

Mono-Substituted Phthalonitriles and Phthalocyanines/295

Phtalonitriles et phtalocyanines monosubstitués/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed September 24, 1979, by the Department of the Navy. Iodophthalonitrile is prepared by mixing aminophthalonitrile with sulfuric acid at a temperature below 25 C, reacting that product with sodium nitrite at a temperature below 15 C, and reacting that product with potassium iodide at a temperature below 20 C. A fluoroalkyl phthalonitrile is prepared by mixing fluoroalkyl iodide, activated copper, iodophthalonitrile, and a solvent under an inert atmosphere at a temperature from 110 C to 125 C at least until the solution turns green. Both compounds are useful in synthesizing phthalocyanines and polyphthalocyanines. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-080 761

Stabilizer/295

Stabilisateur/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 1, 1979, by the Department of the Navy. A stabilizer or drogue, packageable in a minimal volume, which can be automatically deployed to dampen horizontal, vertical and rotational motion of a device such as a hydrophone, operates in a relatively viscous fluid. The stabilizer is disposed on a line or cable connected between the device and a surface float, and includes a horizontally oriented fabric fin extended and supported by a plurality of rigid arms, and a plurality of vertically oriented perpendicular fabric fins connected to, extended and supported by the arms and a rigid vertical tube slidably disposed on the line. The arms are adjacently pivotably connected to a rigid body loaded by the device. Before deployment, the fabric is wrapped around the tube, and the arms are in a raised position substantially adjacent and parallel to the line and the tube, all stowed within a cylindrical container having an open end. The closed end of the container is fixedly connected to the line. The weight of the device acting against the body causes withdrawal of the stabilizer from the open end of the container. Tension on the cable applied by the fuoyance of the float and the weight of the device forces a locking plug, connected to the line, up against the ends of the arms adjacent the line, forcing the arms to pivot 90 deg away from the line perpendicular with respect to each other to extend the fabric and thereby deploy the stabilizer. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-082 504

A Transient Suppression Connector/295

Connecteur à suppresseur de transitoires/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 3, 1979, by the Department of the Navy. A transient suppression connector which is a self-contained unitary assembly having the transient suppression components connected between the electrical cable and the electronics package case is described. A connector adaptor about the electrical connector at the end of cable is attached to the package case. An adaptor plate connected to the connector adaptor supports the electronic circuit board within the package. The transient suppression components are connected between a ground plane and a circuit board contained within the connector adaptor, the ground plane being electrically connected via the connector adaptor to the package case. The pins of the electrical connector extend through the suppression circuit board to the electronic circuit board, being electrically connected to both. Thus, the transient suppression components are connected between the electrical connector and the package case. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-088 264

Telescopic Launch and Retrieval Chute/295

Glissoire télescopique de lancement et de récupération/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 25, 1979, by the Department of the Navy. Apparatus, such as a chute or boom, attached to the stern of a ship permits a towed body to be launched and retrieved without damaging the hull of the ship. The chute includes a plurality of telescoping sections coupled to one another through a locking and release mechanism operated by a cable assembly. In a preferred embodiment, launch comtemplates extension of the chute and activation of the cable assembly so that the chute telescopes open to a locked full extension. The towed body may then be released through the chute to its towing position. Retrieval involves first recapturing the towed body and drawing it up through the chute into the ship and then activating the cable assembly and retracting the chute so that the chute is telescopically folded back to its initial position with the towed body stowed in the chute ready for its next launch. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-088 494

Integral Store Suspension and Communication Device/295

Dispositif intégral de suspension et de communication d'éléments de stockage/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 26, 1979, by the Department of the Navy. An Integral Store Suspension and Communication Device (ISSCD) that transfers power and data to and from a store, senses store separations, and provides mechanical suspension of a store. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-088 498

Motor Drive/295

Commande moteur/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed October 26, 1979, by the Department of the Navy. A gyro motor drive arrangement utilizes two series connected reference coils located 180 degrees apart. The reference coils are within the gyro and at a fixed rotational angle relative to one of the two phase gyro drive coils. The permanent magnet rotor axis is captured by a pivot at one end only. This allows the stator to be precessed or tilted by other means while rotating under control of the motor drive. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-090 787

Automatic Particle Analyzing System/295

Système automatique d'analyse de particules/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 2, 1979, by the Department of the Navy. A measured stream of particles is dropped onto the apex of a distributor cone where it is divided into a circular pattern falling through a narrow sizing zone onto the peripheral edge of a rotatable platen. Platen rotation carries each particle into a frame area viewed, preferably, by a microscope and a TV camera the output of which is applied to a computer programmed to analyze selected characteristics. A rotatably-indexed mirror system reflects selected views into the microscope for the analysis. Interfaced with the computer is a signal generator providing feed-back signals that synchronously control system operation. For example, a feed-back signal stops platen rotation when a particle is brought into the viewing of frame area. Other signals control other functions such as the indexing of the mirror system to provide the desired views, i.e. front, back, top, bottom, etc. Scanning devices other than optics can be used if so desired. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-090 834

Self Compressing Supersonic Flow Device/295

Dispositif d'écoulement supersonique à autocompression/295

Price per copy from NTIS: PC U.S. $6.00/MF U.S. $3.50, filed November 1, 1979, by the Department of the Navy. A supersonic flow device is obtained by using a working fluid which is driven by any adequate means at a predetermined flow rate along a predetermined path. In this flow path, a nozzle array is placed which is designed to converge the flow upon itself, causing supersonic flow. The flow path then follows on its own accord a converging diverging configuration, which is effectively the shape that the flow would be contained by if a second nozzle or diffuser were present. This type of converging diverging flow can be obtained by using a plurality of properly contoured nozzle blades comprising a subsonic throat with a supersonic portion. These back to back subsonic and supersonic sections provide the necessary increase in fluid velocity as the fluid passes through the nozzle, and the proper exit velocity magnitude and direction. In a gas laser, the lasing medium will undergo a lasing region at supersonic speeds shortly after exit from the nozzle. Downstream from the lasing region the oblique and normal shock wave boundaries will occur providing uninterrupted continuous existence of a lasing region. By an appropriate laser mirror system, the coherent radiation that is emitted can be extracted from the shock-free region. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-092 298

A Staircase Electrode-Wall Configuration for MHD Generators/295

Configuration de paroi d'électrode en escalier pour générateurs magnétohydrodynamiques/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 5, 1979, by the Department of the Navy. A staircase electrode-wall configuration for a MHD generator which uses fluid dynamic means to protect the electrodes from substantial damage due to arcing and chemical attack. The electrode walls of a MHD generator duct have periodic conductor/insulator elements where channel divergence or convergence is accomplished in a stepwise fashion. The electrode is situated within the insulator of each element to be backward-facing so as not to be directly exposed to the hot gas flow. The turbulence which exists at the backward-facing electrode moves the arc spot about the surface to prevent severe local damage. Chemical attack inhibited by a laminated electrode surface of a low corrosive material and the turbulence which aids in cooling the electrode face. Additional cooling may be obtained by a purge jet at the electrode face. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-092 819

Submersible Energy Storage Apparatus/295

Appareil submersible de stockage d'énergie/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 9, 1979, by the Department of the Navy. A submersible energy storage apparatus for an electrical power source is provided which includes an electrolysis unit feed water gas collection assembly and a fuel cell. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-093 483

Quick Disconnect Cap Having Pressure Venting Means/295

Bouchon à dépose rapide avec dispositif de mise à l'air libre/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 9, 1979, by the Department of the Navy. This invention relates to quick-disconnect, leak-proof cap assemblies for containers. In a primary application, the invention relates to a quick-disconnect, leak-proof cap assembly for containers having positive internal pressure where the internal pressure may be safely vented through the cap prior to disconnecting the cap from the container. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-093 790

Charging Mechanisms for Electrogasdynamic Spectral Anemometer/295

Mécanismes de charge pour anémomètre spectral électrogazéodynamique/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 7, 1979, by the Department of the Navy. A practical charging mechanism for an electrogasdynamic spectral anemometer using ultraviolet radiation. Ultraviolet radiation issues through windows in the wall of a test section through which flows a turbulent gas. The UV ionizes aerosol particles in the gas flow. A metallic rod which is connected to a high voltage source picks up ions of one polarity and a collector downstream neutralizes the ions of the opposite polarity. The current generated at the collector is measured and analyzed. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-095 111

Magnetic Flip-Flop for Hydrophone Preamplifier/295

Bascule magnétique pour préamplificateur d'hydrophone/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 16, 1979, by the Department of the Navy. A magnetic flip-flop circuit, predominantly used for hydrophone preamplifiers, which allows switching capabilities at a remote location while minimizing the number of conductors. In particular, the circuitry is a magnetic flip-flop system which has a multiple-pole, double-throw latching magnetic relay in combination with a single-pole, nonlatching magnetic relay. The combination is coupled to allow a switching of the magnetic latching relay by merely removing the voltage from a single conductor. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-096 852

A System for Placing Freshly Mixed Concrete on the Seafloor/295

Système pour coulage de béton frais sur le fond marin/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 23, 1979, by the Department of the Navy. This report describes a means for placing freshly mixed concrete on the ocean floor at great depths. A pipeline is grossly positioned by a ship whereas the position of the submerged end is controlled by guide wires, water jets, props, etc. The discharge device at the end of the pipeline includes a slip joint, a tank flooded with seawater to maintain the pipe end submerged a certain distance in the concrete, and an expansion chamber where the velocity of the concrete being discharged is reduced. Deflector means at the pipe end directs the concrete laterally and negates the vertical lift component of the discharging concrete. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-097 028

Power Frequency Converter/295

Convertisseur de fréquence secteur/295

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. This invention relates generally to frequency regulation techniques and, more particularly, to precise frequency control of power waveforms. The American electric power generation and distribution system is a very stable system in regard to frequency control. Historically, the frequency fluctuations have always been small, rarely exceeding 0.1 Hz. As a consequence, American electronic equipment designers assume that a reliable, closely regulated source of power is available to the user. This is usually true in the continental United States. However, when American-made electronic equipment is used in foreign countries, and in particular, small foreign countries where the power systems are often overloaded and poorly regulated, it does not function properly. Power system frequency fluctuations as large as 2 Hz have been observed in at least one foreign nation, resulting in the Navy station there having to switch completely to standby diesel generators as often as twice a day. In addition, many European countries use 50 Hz power instead of the 60 Hz American standard. Therefore, for American military equipment deployed world-wide, power frequency converters are often required to fulfill the assigned mission. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-097 269

Mooring System/295

Dispositif d'arrimage/295

Price per copy from NTIS: PC U.S. $6.00/MF U.S. $3.50, filed November 21, 1979, by the Department of the Navy. A system for mooring a buoyant case such as a marine mine or other marine device at a preselected depth below the surface of the water in which the case was launched. After the case has been launched, and made bottom contact, the mooring system utilizes a first piston assembly in conjunction with a corrodible pin to initiate mooring line payout from a buoyant case to an attached anchor. When the preselected mooring depth is reached, a second piston assembly terminates the mooring line payout and the ascent of the case, thereby resulting in mooring of the buoyant case at the preselected depth. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-099 053

Solid Compositions for Generation Fluorine and Gaseous Fluorine Compounds/295

Préparations solides pour produire du fluor et des composés fluorés/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed November 30, 1979, by the Department of the Navy. A novel solid composition and method for generating fluorine and gaseous fluorine components comprising fluorine rich inorganic oxidixing salts such as tetrafluoro ammonium tetrafluoroborate borofluoride and a high energy fuel selected from the group consisting of metals and metal nitrides together with a complexing agent capable of reacting with and trapping the boron trifluoride combustion by-product. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-099 380

Low-Power Electromagnetic Flowmeter/295

Débitmètre électromagnétique à faible consommation/295

Price per copy from NTIS: PC U.S. $6.00/MF U.S. $3.50, filed December 3, 1979, by the Department of the Navy. A system for minimizing the power requirement of a flowmeter intended for long-term unattended deployment in a current flowing through a body of conductive fluid. The system includes a pair of electrodes in contact with the fluid, and a permanent magnet which generates a magnetic field which is orthogonal to a line passing between the electrodes. An electromagnetic coil is also provided, and is selectively activated and deactivated to establish the orthogonal magnetic field at a first level during first time periods in a series of first time periods, and at second level during second time periods in a series of second time periods. The ratio of the time duration of a first time period to a second time period is substantially less than one. Means coupled to the electrodes generate a first signal during a first time period and a second time signal during a second time period, the first and second signals together enabling determination of an error term, comprising the potential difference between the electrodes when the electrodes are in contact with the fluid, and there is no magnetic field proximate to the electrodes. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-101 029

Modulation Analysis Apparatus/295

Analyseur de modulation/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 6, 1979, by the Department of the Navy. Apparatus for evaluating the modulating quality and adequacy of a transmitted RF signal without knowledge of the signal frequency. The signal from the RF transmitter is sampled and combined with a first reference signal with a pulse rate equal to the transmitter channel spacing. The output signal is filtered in a first band-pass filter and combined with a second reference signal having a frequency close to the first band-pass filter. The resulting signal is passed through a second band-pass filter to a demodulator which provides an output signal depending upon the type of modulation of the transmitted RF signal. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-102 293

Acetylene-Terminated Dianil Monomer and the Polymer Therefrom/295

Dianile à terminaison acétylène et produit de polymérisation ainsi obtenu/295

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. An object of the present invention to synthesize an electrolytically conductive polymer having a high thermal stability. Another object of the present invention is to synthesize a polymer which is electrolytically conductive without the inclusion of electrolytically conductive metal powder. A further object of the present invention is to synthesize an electrolytically conductive polymer which is hydrolytically stable as a resin and requires a relatively low initial processing temperature. These and other objects are achieved from the three-dimensional network polymer obtained from completely conjugated, acetylene-terminated terephthalylidene anilines. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-102 701

Self-Restricting Shutoff Valve/295

Clapet d'arrêt autorestricteur/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed, December 12, 1979, by the Department of the Navy. This report describes a self-restricting shutoff valve for use with a fluid leak detector to prevent excessive loss of fluid in event of a high flow-rate leak. A valve spool within a valve body is spring-biased to a partial flow position and is maintained in an opened position by fluid pressure. Upon loss of fluid system pressure, springs move the valve spool to a position to restrict fluid flow through the valve body. When sufficient loss of fluid occurs, a fluid leak detector actuates a pilot valve so that system fluid moves the valve spool to a closed position. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-104 521

Pilot Helmet Mounted CIG Display with Eye Coupled Area of Interest/295

Projecteur d'images synthétisées par ordinateur monté sur casque de pilote avec dispositif suiveur de vision/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 17, 1979, by the Department of the Navy. An objective and advantage of the present invention is to provide a display of computer generated images that allocates edges or other forms of resolution by proximity to the observer's instantaneous area of interest. Accordingly, available resources of equipment and bandwidth are employed with efficiency to provide a dynamic display that corresponds to the visual acuity of the observer. The present invention includes a computer generated image that is projected onto a distant screen by apparatus which aligns with a trainee's line of sight, as determined by an eye tracker, and head tracker where desired. The image generator is programmed with a preselected scene arrangement and is responsive to operator actuated controls to simulate a flight, for example. The generator is also responsive to head, and most preferably, eye movements of the operator to apportion definition of the image within the scene displayed. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-105 315

Method of Producing a Plaque Dispersing Enzyme/295

Méthode de préparation d'une enzyme pour disperser la plaque dentaire/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed December 19, 1979, by the Department of the Navy. This report describes a method of producing alpha-1, 3-glucanase by introducing a bacterial culture such as Pseudomonas sp. isolate into an aqueous medium containing a 'limit glucan' substrate which is greater than 90 percent alpha-1, 3-glycosidically linked, then allowing growth to take place to accumulate alpha-1, 3-glucanase, and then recovering the enzyme for use as an oral therapeutic agent. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-110 076

Thermal Battery Cells Utilizing Molten Nitrates as the Electrolyte and Oxidizer/295

Accumulateurs thermiques utilisant des nitrates en fusion comme électrolyte et oxydant/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed January 7, 1980, by the Department of the Navy. The present invention solves the above problems by using nitrate salts which allows lower activation temperatures because of their lower melting points and said salts are also the cell cathodic material, namely the cell electrolyte and the cell oxidizer. More specifically, the thermal battery cell of this invention comprises a low melting point electrolyte in the presence of halides, a cathode, an oxidizer and a calcium anode wherein the electrolyte and cathode material (oxidizer) are nitrate salts. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-111 443

Electrooptically Balanced Alternating Delta Beta Switch/295

Commutateur Delta Beta alternatif à équilibrage électro-optique/295

Price per copy from NTIS: PC U.S. $5.00/MF U.S. $3.50, filed, January 11, 1980, by the Department of the Navy. An electrooptical waveguide switching device comprising three sections of abutting crystalline substrates, the easy axis of each substrate being orthogonal to that of its neighbors. Each substrate is formed with a pair of waveguide sections which couple with those of the other sections, when the substrates are abutted, to form a pair of waveguide channels across the substrate sections. Sets of electrodes for directing horizontal and vertical electric fields through one waveguide channel are also formed on the substrate sections symmetrically about an axis of symmetry. This invention relates to electrooptic waveguide assemblies and especially to an electrooptic modulator/switch in which the effect of the modulating electric fields on the TE and TM modes propagating through electrooptic waveguides is balanced. it is well known that the magnitude of index of refraction can be changed by applying an external electric field in some crystals. This property has been widely utilized for the switching and modulation of guided as well as unguided (bulk) optical beams. In general, selection of proper crystal orientation is a prerequisite for successful operation of electrooptic devices since the electrooptic effect is anisotropic. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

PAT-APPL-6-113 426

Equi-Visibility Lighting Control System/295

Système de régulation de l'éclairage/295

Price per copy from NTIS: PC U.S. $6.00/MF U.S. $3.50, filed January 18, 1980, by the Department of the Navy. This invention relates to lighting control systems and more particularly, to a lighting control system which automatically maintains high quality illumination while optimizing the conservation of energy. Most lighting systems are designed without regard for the benefits of natural daylighting. Daylighting is an illumination source which can be utilized to achieve better conservation of energy through appropriate building design. One recent office building design, for example, uses up to 80 percent natural daylighting. Because the building is also used when it is dark outside, such as on early winter mornings, the building's lighting system must be able to provide illumination over a range of 20 percent artificial lighting (80 percent daylighting) to 100 percent artificial lighting (no daylighting). The only reliable system that can adapt to such a wide range of artificial lighting levels and also optimize the conservation of energy is one which is entirely automatic. For negotiations write: U.S. Department of the Navy, Assistant Chief for Patents, The Office of Naval Research, Mailing Code: 302, Arlington, Virginia 22217 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Licensing Opportunities from Japan

Contact:
Mr. Hiroshi Ando
Manager
Department of Patent License
Research Development Corporation of Japan
5-2, Nagata-cho 2-chome
Chiyoda-ku, Tokyo 100
Japan

The following developments at the prototype stage are offered for manufacture in Canada by the RESEARCH DEVELOPMENT CORPORATION OF JAPAN. Enquiries concerning the acquisition of the Canadian manufacturing rights should be addressed to MR. HIROSHI ANDO at the above address with a copy of the initial correspondence sent to: Commercial Division, Embassy of Canada, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japan. Please quote the full title and reference number of the item you are interested in. At the same time JRDC would prefer to receive any information about you and your activities.

JRDC 951

Rectangular Tunnel/295

This method comprises a process of sequentially excavating horizontal or gently sloped crosscut shafts in the right angle direction from the gateway shafts to form an artificial roof by plugging concrete sequentially; a process of forming vertical and continuous concrete wall pillars directly below the opposite sides and the center of the artificial roof; a process of forming tunnel shafts by excavating the inner blocks covered by the walls and the artificial roof; and a process of forming invert concrete on the bottoms of the tunnel shafts. It is also possible to construct a two-story tunnel by repeating the above processes. Thus the technique for expanding the traffic width in the tunnel has been established.

JRDC 969

Local Solution Treatment of Austenitic Stainless Steel Pipes/295

A method for preventing stress corrosion cracks in the vicinity of a weld of an austenitic stainless steel pipe. In this method, chromium carbide precipitated during welding is almost completely solutionized by heating the proximity of the weld through rapid induction heating brought about with great electric current immediately followed by rapid quenching, while at the same time the chromium carbide is not precipitated in the new heat boundary. Advantages: it is no longer necessary to use such pipes as type

Possibilités d'obtention de licences du Japon

S'adresser à:
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Japan

La RESEARCH DEVELOPMENT CORPORATION OF JAPAN offre les développements suivants, au stade prototype, pour la fabrication sous licence au Canada. Les demandes de renseignements concernant l'acquisition des droits de fabrication au Canada doivent être adressées à M. Hiroshi Ando à l'adresse ci-dessus et une copie de la correspondance initiale devrait être envoyée à la Division commerciale de l'ambassade du Canada, 3-38 Akasaka 7-chome, Minato-ku, Tokyo 107, Japon. Veuillez indiquer le titre complet et le numéro de référence de l'article qui vous intéresse. La Corporation aimerait également recevoir, en même temps que votre demande, des renseignements sur votre entreprise et vos activités.

JRDC 951

Tunnel rectangulaire/295

Cette technique consiste à excaver par tranches de longueur des petits tunnels horizontaux ou légèrement en pente, perpendiculairement au tunnel principal en commençant par creuser la partie supérieure dans laquelle on coule du béton pour former un plafond artificiel. On érige ensuite des piliers en béton pour soutenir le plafond de chaque côté et au centre, puis on excave la partie pleine délimitée par les piliers et le plafond et on coule du béton dans le fond. Il est possible de construire un tunnel à deux niveaux en répétant les opérations susmentionnées. Cette technique permet une plus grande largeur utile des tunnels.

JRDC 969

Traitement local des soudures des tuyaux en acier inoxydable austénitique/295

Méthode pour prévenir les criques de corrosion au voisinage d'une soudure dans les tuyaux en acier inoxydable austénitique. Cette méthode consiste à remettre en solution le carbure de chrome qui a précipité pendant le soudage, en chauffant le métal à proximité de la soudure par chauffage inductif rapide avec un courant électrique intense, puis en trempant rapidement. Le carbure de chrome ne précipite pas dans la nouvelle limite de chauffage. Avantages: on peut utiliser de l'acier inoxydable 304,

316,347 and the like which are not advantageous in terms of economy and technical adaptability; eliminates the following drawbacks of the solution treatment by heating and quenching the entire piping that has been in practice: (1) deformation of piping due to heat treatment, (2) high cost of heat treatment, and (3) unbalanced treatment results; adaptation at the construction site is also possible.

JRDC 974

Hydraulic Brake Booster System/295

A system driven by a hydraulic fluid flow of a power steering system having a series circuit of a pump, a booster, and a power steering, as well as a parallel circuit of a booster and a power steering. The system is provided with a switching device from the series circuit to be used at an early stage of the braking operation when a high flow rate is desired to the parallel circuit to be used at a later stage of the braking operation when a maximum pressure is necessary to enhance the braking effect. Thus the brake system takes advantage of both circuits. Installation in a limited space is made easy. When used in large-size vehicles like trucks, etc., this booster costs less as compared with vacuum type brake boosters.

JRDC 978

High Vacuum Pump/295

A vacuum pump which can continuously achieve an exhaust or pumping operation over a wide vacuum range from 760 to 10^{-6} Torr. In this pumping system, a molecular drag pump performs large volume exhaust when pumping at a high vacuum pressure of 10^{2} to 10^{6} Torr level and an oil rotary pump acts as a backing pump for the molecular drag pump. When pumping at a low vacuum pressure of 760 to 10^{-2} Torr level, the oil rotary pump performs exhaust while the molecular pump is nearly idling and partially functions as a booster for the oil rotary pump and forms an exhaust route for the oil rotary pump. At the same time the molecular pump serves to return the oil back flowing, from the oil rotary pump into the high vacuum region, to the oil rotary pump side. Advantages: the pump continuously achieves an exhaust or pumping operation, by a single driving means, over a wide range from 760 to the order of 10^{-6} Torr — in particular, it enables large volume exhausting (more than ten times over a single rotary pump unit) to be made in the 10^{-1} to 10^{-4} Torr region; oil-free clean high-vacuum conditions — the back flow of the oil from the oil rotary pump can be virtually reduced to zero; the two-stage pumping arranged in one system permits mechanical exhausting by on-off operation of a switch with no lead time and requires no valve operation. (See illustration page 43.)

plutôt que les types 316 et 347 plus coûteux; on élimine les inconvénients suivants des traitements antérieurs de remise en solution qui consistaient à chauffer et à tremper tout le tuyau: (1) déformation du tuyau en raison du chauffage; (2) coût élevé du chauffage; (3) résultats non homogènes du traitement. La présente méthode peut être utilisée sur le chantier.

JRDC 974

Dispositif hydraulique d'amplification de freinage/295

Il s'agit d'un dispositif entraîné par le liquide hydraulique de la servodirection; il se compose d'un circuit monté en série comprenant une pompe, un dispositif d'amplification et une servodirection, de même que d'un circuit monté en parallèle comprenant un dispositif d'amplification et une servodirection. Le dispositif est doté d'un interrupteur qui permet au circuit monté en série d'entrer en action au début du freinage, alors qu'un fort débit est nécessaire, et au circuit monté en parallèle d'entrer en jeu plus tard au cours du freinage, lorsqu'une pression maximale est nécessaire à l'amplification du freinage. Ainsi, le circuit de freinage tire avantage des deux circuits. La pose est facile même si l'espace est restreint. Dans le cas des gros véhicules comme les camions, etc., le dispositif d'amplification coûte, moins cher que les dispositifs à vide correspondants.

JRDC 978

Pompe à vide poussé/295

Il s'agit d'une pompe à vide qui peut fonctionner en continu sur une grande plage de vide allant de 760 à 10^{-6} torrs. Une pompe moléculaire exécute le gros du pompage lorsque le vide est compris entre 10^{2} et 10^{6} torrs et une pompe rotative à huile sert de pompe d'appoint. Si le vide est faible, de l'ordre de 760 à 10^{-2} torrs, c'est la pompe rotative à huile qui fait le travail alors que la pompe moléculaire tourne presque à vide, fonctionne en partie comme pompe d'appoint et laisse passer le liquide refoulé par la pompe rotative. De plus, la pompe moléculaire permet à l'huile de la pompe rotative de retourner dans la zone de vide poussé, du côté pompe rotative du dispositif. Avantages: La pompe permet un pompage continu à l'aide d'un dispositif d'entraînement unique sur une grande plage de pression allant de 760 à 10^{-6} torrs — plus particulièrement, elle permet le pompage de grands volumes de liquide (plus de 10 fois supérieurs à ceux que déplacerait une pompe rotative unique) dans une plage de pression comprise entre 10^{-1} et 10^{-4} torrs; la création d'un vide poussé sans présence d'huile est permise — le refoulement de l'huile de la pompe rotative est à toutes fins pratiques éliminé; les deux étages de pompage intégrés en un seul dispositif permettent de commander le pompage mécanique à l'aide d'un interrupteur marche-arrêt sans délai et n'exige pas de soupape. (Voir l'illustration page 43.)

JRDC 979

Electrically Operated Switching Valve/295

A device for opening and closing a valve through the force caused by the thermal expansion of a heating wire, energized with an electric current, wound around a thermally expanding or contracting strap member to operate the snap-action plate, by which the switching valve is actuated. It requires no solenoid coil. The required power can be as small as it is necessary for expanding and contracting the metal, thereby making it possible to achieve valve functions in a small device. Furthermore, if the power to be sent to the heating wire is controlled, it will serve to save power, prevent physical deterioration of the peripheral parts due to overheating, and prevent decrease in the responsivity of return caused by overheating after the wire is energized. Advantages: the weight can be reduced by approximately 70% as compared with the magnetic coil type valve; the cost can be reduced by approximately 50% as compared with the magnetic coil type valve; time delay function can be added.

JRDC 979

Soupape électrique de commutation/295

Il s'agit d'un dispositif permettant d'actionner une soupape par l'intermédiaire de la pression créée par la dilation d'un fil chauffant sous tension enroulé autour d'une barrette; cette dernière se dilate ou se comprime sous l'effet de la chaleur et déplace une plaque à action rapide qui, elle, actionne la soupape. Il n'y a aucun solénoïde. Seul le courant requis pour la dilatation du métal est nécessaire de sorte que la soupape peut être incorporée à un petit dispositif. De plus, l'installation d'une commande de mise sous tension du fil chauffant permet d'économiser de l'énergie et d'empêcher que la surchauffe n'endommage les pièces adjacentes et ne ralentisse le fonctionnement de la soupape. Avantages: Le poids peut être réduit d'environ 70 % comparativement aux soupapes à solénoïde et le coût, d'environ 50 %; la temporisation est possible.

JRDC 9710

Ultra Precision Spherical Air Bearing Spindle/295

This spherical air bearing spindle can support, with only one spherical bearing, both radial and thrust loads and its radial bearing of semispherical structure makes the assembling easier and the precision higher, because the spherical and semispherical bearings can be easily centered. It is hardly influenced by thermal expansion, because its axial elongation due to the expansion is absorbed at the radial bearing side. If this spindle is used for cutting soft metals such as aluminum, copper, etc., with diamond tool, it is possible to obtain a mirror surface of 0.01 μm R max. available for laser reflector. This spindle is also used in high precision measuring apparatus and precision machining apparatus for semiconductors.

JRDC 9710

Arbre muni d'un roulement sphérique à air de très grande précision/295

Il s'agit d'un arbre muni d'un roulement sphérique à air qui peut supporter, à l'aide de ce seul roulement, des charges radiales et axiales. Le roulement radial étant hémisphérique, le montage est facilité et la précision accrue, les roulements sphériques et hémisphériques étant faciles à centrer. La dilatation thermique influe peu sur le roulement, l'allongement axial étant absorbé à l'extrémité du roulement radial. Si le présent arbre est utilisé pour couper des métaux mous comme l'aluminium, le cuivre, etc., à l'aide d'un outil diamanté, il est possible d'obtenir une surface de miroir de 0.01 μm R au maximum utilisée comme réflecteur de rayons laser. Cet arbre est également employé dans les appareils de mesure de grande précision et les appareils d'usinage de précision pour semi-conducteurs.

JRDC 982

Internally Oxidized Silver Base Alloy for Electrical Contacts/295

Is obtained as a mixture alloy of silver and oxides by internally oxidizing a silver-base alloy in which the sum of Zn and Te is 2 to 13 at. % within the range of 1 to 12 at. % of Zn and 0.1 to 1 at. % of Te; or a silver-base alloy which contains besides Zn and Te within the aforementioned range of ratio, either 0.3 to 8 at. % of In or 0.3 to 3 at. % of Sn or both of them, and whose sum of respective elements is within the range of 2 to 13 at. %, thereby solute elements being oxidized and dispersed in the silver matrix. The material exhibits excellent performance when used as a contact for electromagnetic switches and other switches intended for industrial and domestic use.

JRDC 982

Alliage à base d'argent, à oxydation interne, pour contacts électriques/295

Alliage mixte d'argent et d'oxydes obtenu par oxydation interne d'un alliage à base d'argent contenant de 2 à 13 % d'atomes de Zn et Te (1 à 12 % d'atomes de Zn et 0,1 à 1 % d'atomes de Te), ou d'un alliage à base d'argent contenant en plus des deux métaux déjà cités, 0,3 à 8 % d'atomes de In ou 0,3 à 3 % d'atomes de Sn, ou un mélange de ces deux atomes, la somme de tous les atomes restant comprise entre 2 et 13%. Les éléments solutés sont oxydés et dispersés dans la matrice d'argent. Le matériau est excellent comme contact dans les interrupteurs électromagnétiques et les autres interrupteurs pour usage industriel ou domestique.

JRDC 988

Termination of D.C. High Tension Electric Cable/295

This technology provides a method of electrically connecting the semi-conductive layer with the conductor by impregnating a specified portion of the semi-conductive plastic layer near the cable end with insulating oil to make the semi-conductive layer highly resistive. Advantages: skilled work in stripping off the semi-conductive layer or wrapping with a highly resistive tape can be eliminated in forming a termination of a DC high tension cable. There is no fear of an electrical defect being caused between a semi-conductive layer and an insulator, and a resistive termination with excellent dielectric breakdown strength can be obtained because of the semi-conductive layer integrally formed with an insulator.

JRDC 988

Technique de terminaison des câbles sous haute tension continue/295

La technique permet de raccorder électriquement la couche semi-conductrice au conducteur par imprégnation d'une partie précise de la couche voisine de l'extrémité du câble avec de l'huile isolante qui rend la couche très résistante. Avantages: il n'est plus nécessaire d'avoir recours à de la main-d'oeuvre spécialisée pour arracher la couche semiconductrice ou pour couvrir le câble de ruban de grande résistance. Les risques d'un défaut électrique entre une couche semiconductrice et un isolant sont nuls. D'autre part, la terminaison obtenue est d'excellente rigidité diélectrique puisque la couche est formée intégralement avec un isolant.

JRDC 9813

Grading and Distributing Device Based on Three-Dimensional Image Analysis/295

The image analyzer is a horizontal rotary mechanism in which the light sensor is mounted on the inner wall of the cylinder. When an opaque object passes through the hollow portion of the rotary cylinder, the shadow spectrum of the object is picked up by the light sensor at every small rotation angle and the microcomputer performs three-dimensional image process automatically with stored data and decides the action of the sorting and distributing equipment. Advantages: the equipment is compact and easy to handle and the number of sorting and distributing criteria can be modified with operation of a push button, resulting in savings in time and expense; the modification can be brought about by the change of software cassettes; the feed speed is equivalent to, or greater than that of the conventional line sensor. (See illustration page 43.)

JRDC 9813

Dispositif de tri et de distribution basé sur l'analyse d'une image tridimensionnelle/295

L'analyseur d'image est un mécanisme rotatif horizontal contenant un senseur optique sur la paroi intérieure du cylindre. Lorsqu'un objet opaque passe à l'intérieur du cylindre rotatif, le spectre de l'ombre de l'objet est enregistré par le senseur à chaque angle de rotation et un microprocesseur restitue automatiquement une image tridimensionnelle à partir des données reçues et décide des actions des mécanismes de tri et de distribution. Avantages: l'appareil est compact et facile à utiliser, et le nombre des critères de tri et de distribution peut être modifié au moyen d'un bouton-poussoir, ce qui économise du temps et de l'argent; des modifications peuvent être introduites au moyen d'une cassette-programme; la vitesse est égale ou supérieure à celle des senseurs conventionnels des chaînes de fabrication. (Voir l'illustration page 43.)

JRDC 9816

Automatic Digital Q Meter/295

With conventional Q value measuring instruments, tuning is rather difficult, but with this instrument, the tuning operation is automated by using a servo motor and the Q value and inductance can be immediately displayed on the panel meter in digital form by simply connecting the measuring terminal to the object to be measured. Furthermore, the frequency covers a wide range from 30 kHz to 30MHz and arbitrary 6 spot frequencies can be selected within this range. Linked to an external computer, the apparatus can be computer-controlled. It is also provided with an output terminal for recording measurement results on a recorder. The instrument is simple, easy to operate and multi-functional. The instrument can be effectively used not only in research and development but also as a testing machine in the production process.

JRDC 9816

Q-mètre numérique automatique/295

Contrairement aux appareils Q-métriques classiques qui sont d'accord difficile, ce nouveau Q-mètre est accordé automatiquement grâce à un servomécanisme. La valeur du coefficient Q et l'inductance sont instantanément affichées sous une forme numérique dès que les sondes sont raccordées à l'objet soumis à l'essai. La plage de fréquences étendue de l'appareil va de 30 kHz à 30MHz; l'appareil permet en outre de présélectionner six fréquences dans cette plage. Le fonctionnement du Q-mètre peut être commandé par calculateur externe. Enfin, les résultats peuvent être enregistrés. L'appareil est simple, d'emploi facile et polyvalent. On peut s'en servir en recherches et développement ou encore comme appareil de contrôle en cours de fabrication.

JRDC 9817

B-H Loop Tracer/295

This equipment measures the magnetic characteristics of magnetic materials by permitting tracing of the B-H loop by a primary winding alone. It can be displayed on an oscilloscope and the result can also be recorded on an X-Y recorder. Measuring frequencies are 50 Hz, 100 Hz, 1 kHz and 10 kHz. Advantages: changes in the B-H loop can be verified during the production process from the raw material stage to completion of the product; can also be employed for quality control check of products in the production process. (See illustration page 43.)

JRDC 9819

Quantitative Analysis of Oxygen Content in an Organic Compound/295

This technology relates to a method that permits higher accuracy than that by the conventional method. This method permits routine analysis with an absolute error of + 0.2% or less. Quantitative analysis can be done with a sample amount of 1 to 1.5 mg and the time required for analysis is approximately 15 min. The analysis is not affected by the presence of sulphur, chlorine, bromine, iodine and other elements in the organic compound. It is possible to make quantitative analysis of oxygen in an organic compound containing copper, zinc, lead, iron, cobalt, nickel and other metal elements. (See illustration page 43.)

JRDC 9817

Traceur de cycle B-H/295

Ce matériel permet de mesurer les caractéristiques magnétiques de matériaux magnétiques par traçage de leur cycle B-H au moyen d'un enroulement primaire seulement. Le cycle peut être affiché sur un oscilloscope ou encore enregistré sur une table traçante X-Y. Les fréquences de mesure sont 50 Hz, 100 Hz, 1 kHz et 10 kHz. Les avantages du matériel sont que le cycle B-H peut être contrôlé en cours de fabrication, depuis le stade de la matière première jusqu'au produit fini et qu'on peut s'en servir pour contrôler la qualité des produits pendant même leur fabrication. (Voir l'illustration page 43.)

JRDC 9819

Analyse quantitative de la teneur en oxygène d'un composé organique/295

La présente technique assure une plus grande précision que la méthode conventionnelle. Elle permet des analyses de routine dont l'erreur absolue ne dépasse pas + 0,2%. L'analyse quantitative peut être faite sur un échantillon de 1 à 1,5 mg et le temps nécessaire est d'environ 15 min. L'analyse n'est pas affectée par la présence de soufre, de chlore, de brome, d'iode et d'autres éléments dans le composé organique. Il est possible de doser l'oxygène dans un composé organique contenant du cuivre, du zinc, du plomb, du fer, du cobalt, du nickel et d'autres éléments métalliques. (Voir l'illustration page 43.)

TECHEX '81

The 9th annual World Fair for Technology Exchange will be held on three continents during March and April of 1981.

TechEx '81 — Americas	March 10-13, 1981 Georgia World Congress Center, Atlanta, Georgia, U.S.A.
TechEx '81 — Europa	March 17-20, 1981 Wiener Stadthalle, Vienna, Austria
TechEx '81 — The Third World in Sri Lanka	April 29-May 4, 1981 Bandaranaike Memorial International Conference Hall, Colombo, Sri Lanka

These fairs provide for one-to-one contact between exhibitors and attendees from industries, government agencies, universities and individual inventors in more than 50 countries who are interested in buying or selling licensing rights to technology and/or know-how for new products, processes, methods, designs, formulae or techniques. The fairs at Atlanta and Vienna will feature new developments in high and advanced technologies while the Third World in Sri Lanka, in cooperation with the Government of Sri Lanka, will combine an exhibition and congress focussing on technology and problems related to new industry for developing and lesser developed countries. A four page brochure detailing aspects of, and participation at, all three sites is available from: Dr. Dvorkovitz & Associates, P.O. Box 1748, Ormond Beach, Florida 32074, telephone 904-677-7033.

TECHEX '81

La 9e Foire annuelle mondiale d'échanges de technologie se tiendra sur trois continents en mars et en avril 1981.

TechEx 1981 — Amérique	du 10 au 12 mars 1981 Georgia World Congress Center Atlanta (Georgie), États-Unis
TechEx 1981 — Europe	du 17 au 20 mars 1981 Wiener Stadthalle Vienne, Autriche
TechEx 1981 — Tiers monde en Sri Lanka	du 29 avril au 4 mai 1981 Bandaranaike Memorial International Conference Hall, Colombo, Sri Lanka

Ces expositions favorisent les contacts personnels entre les exposants, les visiteurs provenant des secteurs industriel, gouvernemental et universitaire et les inventeurs de plus de 50 pays désireux d'acheter ou de vendre les droits sous licence de leur technologie ou de leur savoir-faire pour de nouveaux produits, procédés, méthodes, conceptions, formules ou techniques. Les expositions d'Atlanta et de Vienne souligneront de nouveaux perfectionnements des technologies de pointe et avancée tandis que l'exposition de Colombo, qui tiendra à la fois de la foire et du colloque, sera axée sur la technologie et les problèmes des nouveaux secteurs industriels des pays en voie de développement. On peut se procurer un dépliant de quatre pages donnant tous les renseignements voulus sur les modes de participation et sur les trois sites de la foire à l'adresse suivante: Dr Dvorkovitz & Associates, P.O. Box 1748, Ormond Beach, Florida 32074; Tél. (904) 677-7033.

Licensing Executive Society, Inc. U.S.A. and Canada

This is a member society of the Licensing Executives Society International which includes the following Member Societies: LES Argentina, LES Australia, LES Benelux, LES Espana, LES France, LES Germany, LES Iran, LES Italia, LES Japan, LES Korea, LES Mexico, LES Scandinavia, LES Switzerland, LES U.K., LES U.S.A. It was formed in 1965 in the United States to function as a non-profit, professional and educational society, encouraging high professional standards among individuals engaged in the domestic and/or foreign licensing of technology and industrial or intellectual property rights.

It assists its members in improving their skills and techniques in licensing through self education; the sponsoring of educational meetings; the publication of articles and other materials, including presentations at meetings and exchanges ideas related to domestic and foreign licensing. LES also aids in research on licensing; informs government bodies, universities, patent attorneys and the business community concerning the economic aspects and importance of licensing and the high professional standards of those engaged in the transfer of technology and know-how; and publishes a Technology Directory to assist members identify fellow LES individuals with mutual licensing interests. The Directory, assembled by technology categories, lists firms or individuals wishing to buy and/or sell licenses. The Directory is mailed only to LES members.

Joint Central/Western Regional meetings and Eastern/Canada meetings of LES are held annually, as well as LES U.S.A./Canada and LES International general meetings. Membership costs U.S. $50. annually and includes a subscription to LES Nouvelles® published each March, June, September and December.

Canadian individuals interested in becoming a member of the Canadian Committee of this worldwide federation of business-oriented professional society of persons involved in the transfer of technology and industrial or intellectual property rights, should request application for membership forms from: Mr. W.S. Campbell, Vice President LES Canada, c/o Consumers Glass Company Limited, 701 Evans Avenue, Suite 510, Etobicoke, Ontario M9C 1A3.

Licensing Executive Society, Inc. États-Unis et Canada

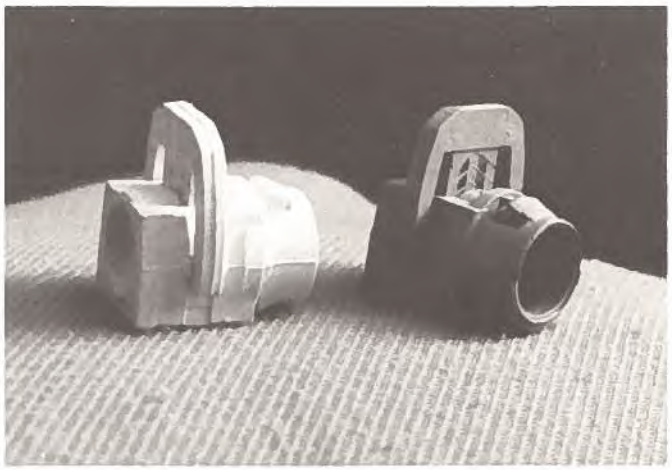
Cette société est membre de la Licensing Executives Society International qui groupe les sociétés suivantes: LES Argentine, LES Australie, LES Bénélux, LES Espagne, LES France, LES Allemagne, LES Iran, LES Italie, LES Japon, LES Corée, LES Mexique, LES Scandinavie, LES Suisse, LES Royaume-Uni, LES États-Unis. Elle été fondée en 1965 aux États-Unis à titre de société professionnelle et éducative à but non lucratif devant encourager l'observation de normes élevées de professionnalisme par les particuliers qui accordent des licences dans leur propre pays et (ou) à l'étranger portant sur des technologies ou des droits de propriété industrielle ou intellectuelle.

Cet organisme aide ses membres à améliorer leurs compétences techniques qui font l'objet d'accords de licence par des procédés autodidactes; le parrainage de réunions éducatives; la publication d'articles et d'autre documentation, y compris la présentation d'exposés à des réunions; l'échange d'idées ayant trait à l'accord de licences dans son propre pays et à l'étranger. LES aide également aux travaux de recherche sur l'accord de licences; informe les organismes gouvernementaux, les universités, les conseillers juridiques (brevets) et le monde des affaires en ce qui concerne les aspects économiques et l'importance des licences et les normes de professionnalisme élevées qui doivent caractériser les transferts de technologies et de savoir-faire et publie un répertoire des technologies pour aider les membres à identifier leurs collègues membres des LES qui ont des intérêts communs en matière de licences. Le répertoire, qui se divise par catégories de technologies, donne une liste de compagnies et de particuliers désireux d'acheter et (ou) de vendre des licences. Il est adressé aux membres des LES seulement.

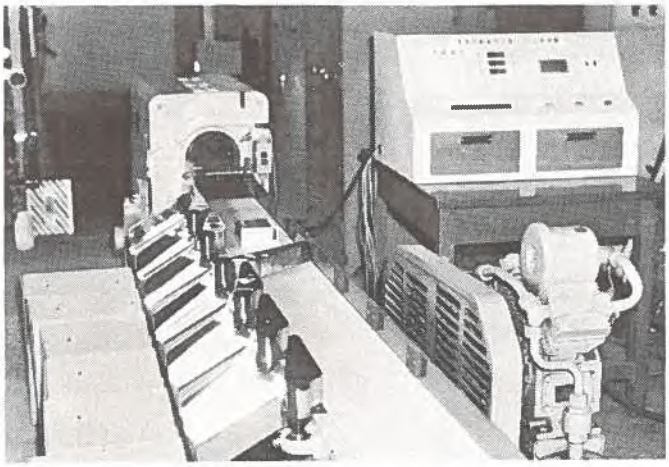
Des réunions mixtes de LES groupant les membres des régions, soit le centre, l'ouest et l'est du Canada, ont lieu chaque année. Il y a aussi des assemblées générales auxquelles sont convoqués les membres de LES des États-Unis, du Canada et d'autres pays. Les frais d'adhésion sont de $(US)50 par année; ils donnent droit à l'abonnement à la revue LES Nouvelles qui est publiée en mars, juin, septembre et décembre.

Les Canadiens qui désirent se joindre au comité canadien de cette fédération internationale groupant des professionnels qui s'intéressent aux affaires et qui s'occupent de transferts de technologies, de droits de propriété industrielle ou intellectuelle doivent écrire à Mr. W.S. Campbell, Vice President, LES Canada, c/o Consumers Glass Company Limited, 701 Evans Avenue, Suite 510, Etobicoke, Ontario M9C 1A3 pour demander une formule d'adhésion.

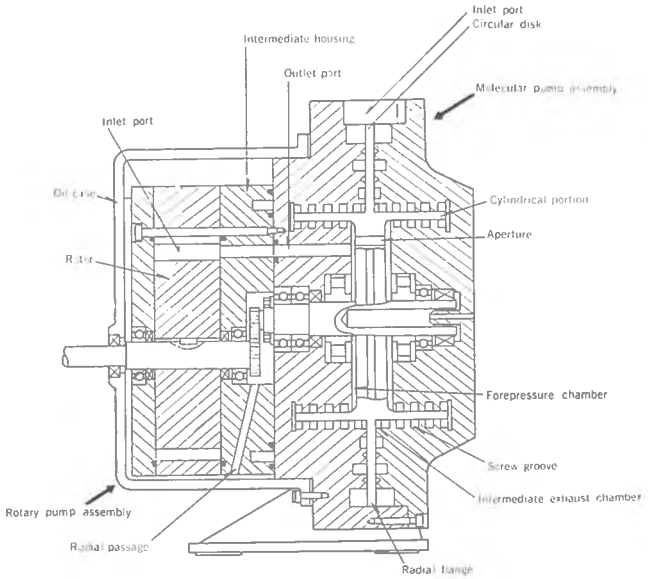
Flexible Intermediate Bulk Containers (See page 3.)
Conteneurs en vrac intermédiaires flexibles (Voir page 3.)



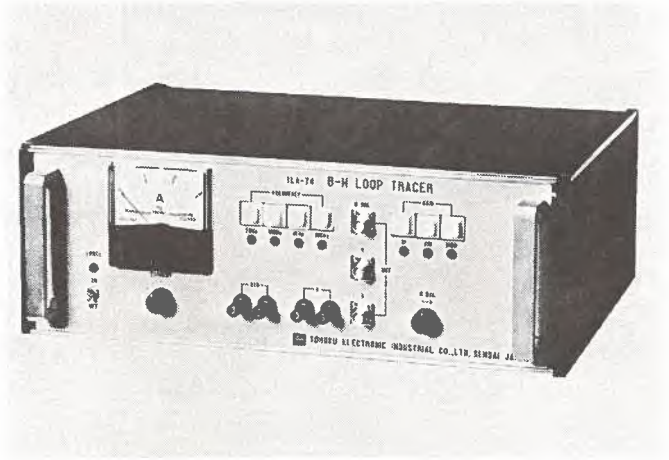
Reusable Plastic Connector for Non-Metallic Sheathed Cable (See page 4.)
Connecteur réutilisable en plastique pour câbles à gaine non métallique (Voir page 4.)



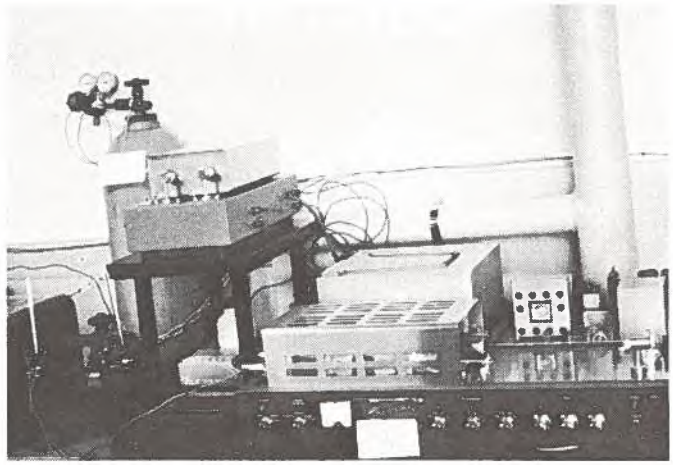
Grading and Distributing Device Based on Three-Dimensional Image Analysis (See page 39.)
Dispositif de tri et de distribution basé sur l'analyse d'une image tridimensionnelle (Voir page 39.)



High Vacuum Pump (See page 37.)
Pompe à vide poussé (Voir page 37.)



B-H Loop Tracer (See page 40.)
Traceur de cycle B-H (Voir page 40.)



Quantitative Analysis of Oxygen Content in an Organic Compound (See page 40.)
Analyse quantitative de la teneur en oxygène d'un composé organique (Voir page 40.)

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