new products bulletin

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bulletin de produits nouveaux

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

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

Le présent bulletin, publié tous les mois, a pour objet d'informer l'industrie canadienne d'occasions de fabrication sous licence et d'entreprise 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 (Téléphone: (613) 995-5771), de toute entente intervenue à la suite de la présente publicité.

FEBRUARY 1980 **BULLETIN 289** **FÉVRIER 1980**

Continuous Casting Improvement/289

A design for new equipment which overcomes the major problems of nozzle deposits blocking flow and oxidation of the molten stream of the continuous casting process. With this approach, casting rate becomes an independent variable, controllable to maximize metallurgical quality. Write: Case 6672, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to: Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Canada K1A 0H5.

Cain Encoder®/289

American company offers the manufacturing and North American marketing rights in the gas utility field to a Canadian company identified with or accepted by the utility industry and having adequate technical background and manufacturing capability (semiconductor manufacturing capability useful). Other overseas, and later fields of use, will be considered separately. Several patents are pending in Canada, U.S. and nine other countries. The Cain Encoder® is a new type of sensor which obtains from existing utility meters (electric or gas) direct dial readings compatible with any electronic communications or load management system. Based on a patented method of using a rotating electric field to sense the positions of the meter hands, the encoder has no moving parts, light sources, brushes, or photocells and can be manufactured in quantity for a projected unit cost less than $15.00. Its performance and resolution are superior to those of present day pulse initiators and special-purpose

Amélioration du moulage en continu/289

Un nouvel équipement d'une conception spéciale qui résout le problème majeur des dépôts sur le bec verseur qui nuisent au flux et à l'oxydation du métal en fusion dans le procédé de moulage en continu. Grâce à cette méthode, le rythme de moulage peut être indépendant, variable et contrôlable, ce qui donne un maximum de qualités métallurgiques. Écrire: Cas 6672, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la: Section des possibilités de licences (34/3), Centre des entreprises, Ministère de l'Industrie et du Commerce, Ottawa (Canada) K1A 0H5.

Le codeur Cain®/289

Une société américaine offre les droits de fabrication et de commercialisation en Amérique du Nord, dans le secteur des sociétés gazières, à une société canadienne identifiée ou acceptée par l'industrie de service et possédant les ressources techniques (il serait utile qu'elle possède les moyens de fabriquer des semi-conducteurs) et les possibilités de fabrication voulues. D'autres sociétés étrangères et secteurs éventuels d'utilisation feront l'objet d'une étude distincte. Plusieurs brevets seront bientôt accordés au Canada, aux États-Unis et à neuf autres pays. Le codeur Cain® est un nouveau genre de détecteur qui permet des relevés en lecture directe sur les compteurs déjà en usage (d'électricité ou de gaz). Ce dispositif s'adapte aux systèmes de communication électronique ou de contrôle des volumes. Le codeur, conçu à partir d'une méthode brevetée d'utilisation d'un champ électrique rotatif pour capter la position des aiguilles du compteur, ne comporte aucune pièce mobile, aucune source de lumière, brosse ou cellule photoélectrique et il peut être fabriqué à un coût

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photoelectric meters, it requires no power except when a dial reading is actually desired, and is not vulnerable to loss of readings during power outages or periods of lost communication. It allows the utility company to retain its existing meters for use in time-of-day billing, demand metering, load surveys, and tamper detection, and preserves the utility's freedom to buy meters from any source rather than being restricted to the special-purpose meter offered by the supplier of any given load management system. Write: Cain Encoder Company, Post Office Box 991, Greenville, North Carolina 27834 and send a copy of your initial correspondence to: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Preservative Wrapper for Wood Poles/289

German company offers under licence, exclusive manufacturing and marketing rights in Canada for its patented preservative wrapper for wood poles. A joint venture would also be considered. The manufacturing process consists of applying a coating of viscous paste containing high molecular weight polymers, preservative salts and other additives to both sides of a filled glass fiber quilt and then calendering it to the desired thickness and surface smoothness. The finished product in roll form can be stored indefinitely. In use, pieces of the protective wrapper, cut to exact dimensions, are wound around the butt of the utility or fence pole before it is inserted into the ground. It can also be used as a retreatment of poles already in place. The wrapper is flexible enough to fit over surface irregularities and it provides a tight barrier sheath that protects the wood from rot, fungus and insects. Degree of development – Production stage. See illustration (1). Write: Firma Gebrüder Sommer Holzschutz-Handelsgesellschaft mbH, Postfach 2249, D-7850 Loerrach, West Germany and send a copy of your initial correspondence to: Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Hand Dryer with Germ-Free Air/289

German organization offers licensing rights to manufacture in Canada and market in North America under U.S. Patent 4,087,925, its BINEX hand dryer from which biologically germ-free air flows automatically. The BINEX hand dryer has a special micro-glass-filter to retain the germs and two special lamps (no ozone) to kill them. Tests have been certified with good results from Fresenius-Institute Germany. All components are available in North America. Only the sheet material housing need be made by the licensee. The BINEX hand dryer contains a tube which emits germ killing rays in the UV range. This radiation leads to changes in normal filter materials and reduces their effect. Only the

inférieur à $15 l'unité. Son rendement et sa précision sont supérieurs à ceux des systèmes actuels de déclenchement d'impulsions et des compteurs spéciaux photoélectriques; aucun courant électrique n'est nécessaire, sauf pour le relevé du compteur qui ne sera aucunement affecté en cas de panne d'électricité ou de bris du système de communication. Il permet à la société gazière de conserver ses compteurs actuels pour la facturation au jour du relevé, les relevés immédiats, les analyses des volumes et la détection des interruptions et elle est libre d'acheter des compteurs où elle le désire et n'est pas obligée d'acheter un compteur spécial offert par le fournisseur du système prévu de contrôle des volumes. Écrire à l'adresse suivante: Cain Encoder Company, Post Office Box 991, Greenville, North Carolina 27834 et envoyer une copie de la correspondance initiale à: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Enveloppe protectrice pour les poteaux en bois/289

Une société allemande offre à un fabricant canadien les droits exclusifs de fabrication et de commercialisation au Canada de son enveloppe protectrice brevetée pour les poteaux en bois. Elle envisagerait également la formation d'une coentreprise. Le procédé de fabrication consiste à appliquer une couche de pâte visqueuse contenant des polymères dont la masse moléculaire est élevée, des sels protecteurs et d'autres additifs sur les deux faces d'une plaque remplie de fibre de verre que l'on calandre ensuite pour lui donner l'épaisseur et le polissage voulus. Le produit fini et enroulé peut se garder indéfiniment. Pour l'utiliser, il suffit de couper l'enveloppe protectrice à la dimension exacte et de l'enrouler au pied du poteau d'utilité publique ou de clôture avant de l'enfouir sous terre. On peut également utiliser le produit pour retraiter les poteaux déjà en place. Grâce à sa flexibilité, l'enveloppe s'adapte aux surfaces irrégulières et sert de cloison hermétique qui protège le bois contre la pourriture, les champignons et les insectes. L'invention en est au stade de la production. Voir l'illustration (1). Veuillez communiquer avec Firma Gebrüder Sommer Holzschutz-Handelsgesellschaft mbH, Postfach 2249, D-7850 Loerrach, Allemagne de l'Ouest et adresser une copie de votre correspondance initiale au Consulat général du Canada, Immermannstrasse 3, 4 Duesseldorf, Allemagne de l'Ouest.

Séchoir pour les mains à air aseptisé/289

Une organisation allemande offre à une société canadienne les droits sous licence de fabrication au Canada et de commercialisation en Amérique du Nord de son séchoir pour les mains à air biologiquement aseptisé BINEX (brevet américain 4 087 925). Le séchoir pour les mains BINEX est muni d'un filtre à fibres de verre à micromailles destiné à retenir les germes et de deux lampes spéciales (sans ozone) pour les détruire. Les tests de la Fresenius-Institute Germany se sont révélés satisfaisants. Tous les éléments du séchoir sont disponibles en Amérique du Nord. Le détenteur de licence n'aura à fabriquer que le revêtement (la boîte) du séchoir. Le séchoir pour les mains BINEX renferme un tube à rayons ultraviolets pour détruire les germes. Cette radiation modifie

micromesh glass fibre filter used retains its effectiveness under these conditions. The large effective surface area of the filter material is just as important as the diameter of the glass fibres. The bacteria trapped in the fibres are continuously destroyed by radiation. The license for Europe is being negotiated. Write: Mr. Helmut Golombeck, Street Im Bruehl 23, D-5501 Gutweiler, West Germany and send a copy of your initial correspondence to: Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Brander or Marker/289

German manufacturer seeks a company to manufacture and market its permanent HOT MARKERS (type I and II) in Canada. The HOT MARKER is a device for easy, clean and durable branding of wood, leather, plastic, foam materials and also tennis balls. Potential buyers are sporting goods shops, ski-rentals, hospitals, industrial corporations, schools, clubs, tennis coaches (Type I); and individual tennis players, golfers, baseball players, skiers or any person wishing to personalize property made of the above-mentioned materials (Type II). Patent protection for Canada and all the know-how necessary for the production of the HOT MARKER is offered. See illustration (2). Write: E. Falkenstein, Langestr. 46, D 4300 Essen 13, West Germany and send a copy of your initial correspondence to: Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Construction Equipment/289

German manufacturer offers a Canadian company licensing rights to manufacture its multi-purpose paver-finishers of the "Titan" series, its hand guided "Duplex" vibrating rollers with hydrostatic travel and vibration drive and certain vibrating plate compactors, particularly those of the reversible type and to market them initially in Canada and the United States and later possibly in Central and South America. The Canadian company should have experience in manufacturing heavy equipment, an existing distribution and servicing network in Canada and the United States or an ability to build-up a network of dealers with service depots. See illustration (3). Write: Allgemeine Baumaschinen-Gesellschaft, Gerhard L. Pottkamper KG, Kuhbruckenstr. 18, P.O. Box 647, D-3250 Hameln 1, West Germany and send a copy of your initial correspondence to: Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Apparatus for Peeling Onions and Making Onion Rings/289

American company which ceased production operations in 1974 offers a Canadian manufacturer its technology and U.S.

les composantes normalement utilisés dans les filtres et en réduit ainsi l'efficacité. Seul le filtre de fibre de verre à micromailles utilisé demeure efficace dans de telles conditions. La grande surface du filtre est tout aussi importante que le diamètre des fibres de verre. Les bactéries arrêtées par les fibres sont continuellement détruites par la radiation. On négocie actuellement la licence pour l'Europe. Veuillez écrire à M. Helmut Golombeck, Street Im Bruehl 23, D-5501 Gutweiler, Allemagne de l'Ouest et adresser une copie de votre correspondance initiale au Consulat général du Canada, Immermannstrasse 3, 4 Duesseldorf, Allemagne de l'Ouest.

Fer à pyrogravure/289

Un fabricant allemand offre à une société canadienne les droits de fabrication et de commercialisation au Canada de son fer à pyrogravure (type I et II). Le FER A PYROGRAVURE est un instrument permettant de marquer facilement, de façon propre et durable, le bois, le cuir, les plastiques, les matériaux de mousse ainsi que les balles de tennis. Les acheteurs éventuels en sont d'une part les magasins d'articles de sport, de location de skis, les hôpitaux, les entreprises industrielles, les écoles, les clubs, les entraîneurs de tennis (type I); et d'autre part, les joueurs de tennis, les golfeurs, les joueurs de baseball, les skieurs ou toute autre personne désirant identifier l'un des matériaux susmentionnés (type II). Le fabricant offre toute la protection de brevet nécessaire ainsi que tout le savoir-faire nécessaire à la production du FER A PYROGRAVURE. Voir l'illustration (2). Veuillez écrire à E. Falkenstein, Langestr. 46, D 4300 Essen 13, Allemagne de l'Ouest et adresser une copie de votre correspondance initiale au Consulat général du Canada, Immermannstrasse 3, 4 Duesseldorf, Allemagne de l'Ouest.

Matériel de construction/289

Un fabricant allemand offre à une société canadienne les droits de fabrication, sous licence, de sa bitumineuse-finisseuse à usages multiples de marque Titan, de ses rouleaux vibrants manuels Duplex à déplacement hydrostatique et à mouvement vibrateur, et de certains compacteurs à plaques vibrantes, en particulier les modèles réversibles, et de vente, au départ au Canada et aux États-Unis et, peut-être par la suite, en Amérique centrale et en Amérique du Sud. La société canadienne doit posséder l'expérience de la fabrication de matériel lourd, un réseau de distribution et de centres d'entretien bien établis au Canada et aux États-Unis ou être en mesure de constituer un réseau de points de vente et de centres d'entretien. Voir l'illustration (3). Écrire à Allgemeine Baumaschinen-Gesellschaft, Gerhard L. Pottkamper KG, Kuhbruckenstr. 18, C.P. 647, D-3250 Hameln 1, Allemagne de l'Ouest et envoyer une copie de votre correspondance initiale au Consulat général du Canada, Immermannstrasse 3, 4 Duesseldorf, Allemagne de l'Ouest.

Appareil servant à éplucher les oignons et à les mettre en rondelles/289

Une société américaine, qui a cessé ses activités de production en 1974, offre à un fabricant canadien sa technologie

patents issued between November 1970 and June 1973 (3,534,792; 3,537,494; 3,606,917; 3,678,976; 3,682,214; 3,885,519; 3,941,538), with a view to manufacturing in Canada and marketing worldwide its machinery for peeling and slicing onions, for separating and breading onion rings and for making onion rings from a mash. Write: Central Soya Company, Inc., 1300 Fort Wayne National Bank Building, Fort Wayne, Indiana 46802 and send a copy of your initial correspondence to: Canadian Consulate, 1920 First Federal Building, 1001 Woodward Avenue, Detroit, Michigan 48226.

Electrocapacitive Densimeters/289

Canadian representative of the Polish foreign trade organization Polservice offers a Canadian company the licensing rights to manufacture and market electrocapacitive densimerts developed by the Academy of Mining and Metalurgy in Krakow. The densimeter allows constant metering of the amount of component in a mixture of liquid-solid body, liquid-liquid or liquid-gas, either in static or dynamic state. In particular it is suited to metering the process of transporting mixtures in pipelines. It may typically be applied to the following technological process: 1) Hydrotransport of solid body in pipelines; 2) Vaporization, crystallization, absorption, rectification, fluidization – chemistry, petrochemistry; 3) Food industry as well as paper, ceramic and building industries, sanitary and civil engineering. The principle of the measurement is in the changes in the electrical capacity of a sensor of special construction installed in the pipeline, depending on the result and capacitivity of the particular components, their relative proportions in the substance filling the sensor and on temperature. Most solid bodies are characterized by a low capacitivity of the order of 4-8, whereas the value of it is about 80. The densimeter is characterized by its low cost of construction and operation; simplicity in use; small overall dimensions and low weight; does not hinder flow; constant time parameters; wide range of diameters, pressures and mixture speeds. Write: Dalimpex Ltd., 1000 Sherbrooke Street, West, Suite 1700, Montreal, Quebec H3A 1R2 and send a copy of your initial correspondence to: Commercial Division, Canadian Embassy, Matejki 1/5, Srodmiescle, Warsaw, Poland.

Device for Centric Docking in Floating Dock Control/289

Canadian representative of the Polish foreign trade organization Polservice offers a Canadian company licensing rights to manufacture and market a device designed for continuous measurement during docking to read-off the difference of the distance between the hull of the ship and the ship's sides. The centricity and the distance between the ship's sides and the side wall of the dock can be controlled and evaluated on a monitor with graphical record. The device can be assembled on the floating dock only, without affecting the dock's leak proof structure. Centralized information

et ses brevets américains délivrés entre novembre 1970 et juin 1973 (3,534,792; 3,537,494; 3,606,917; 3,678,976; 3,682,214; 3,885,519; 3,941,538), pour la fabrication au Canada et la commercialisation à l'échelle mondiale de sa machine servant à éplucher et trancher les oignons, à séparer les rondelles et à les enduire de chapelure et à faire des rondelles d'oignon à partir d'un mélange. Veuillez communiquer avec Central Soya Company, Inc., 1300 Fort Wayne National Bank Building, Fort Wayne, Indiana 46802 et adresser une copie de votre correspondance initiale au Consulat général du Canada, 1920 First Federal Building, 1001 Woodward Avenue, Detroit, Michigan 48226.

Densimètres électro-capacitifs/289

Le représentant canadien, de Polservice, l'organisation du commerce extérieur de Pologne, offre à une société canadienne les droits de fabrication et de commercialisation de densimètres électro-capacitifs mis au point par l'Académie de l'industrie minière et métallurgique de Cracovie. Le densimètre permet de relever constamment la quantité de composants dans un mélange liquide-solide, liquide-liquide ou liquide-gaz, à l'état statique ou dynamique. Il a été conçu en particulier pour vérifier le procédé de transport des mélanges par pipelines et peut être appliqué surtout aux procédés technologiques suivants: 1) l'hydro-transport de matières solides par pipelines; 2) la vaporisation, la cristalisation, l'absorption, la rectification, la fluidisation – chimie et pétrochimie; 3) l'industrie des produits alimentaires, ainsi que l'industrie du papier, de la céramique et de la construction, les produits d'hygiène et le génie civil. Le principe de la mesure consiste à relever les variations de la puissance électrique d'un détecteur conçu et adapté spécialement au pipeline, selon le résultat et la capacité des composants en cause, leur proportion relative dans la substance contenue dans le détecteur et la température. La plupart des matières solides se caractérisent par une capacité faible de l'ordre de 4-8, tandis que leur valeur est d'environ 80. Le coût de la construction du densimètre est modique, ainsi que son coût d'exploitation, il est simple à utiliser, petit de taille et léger, ne fait pas obstacle au circuit électrique, comporte des paramètres constants, des diamètres, pressions et vitesses de mélange très variés. Écrire à l'adresse suivante: Dalimpex Ltd., 1000, rue Sherbrooke ouest, pièce 1700, Montréal (Québec) H3A 1R2 et envoyer une copie de la correspondance initiale à: Division commerciale, Ambassade du Canada, Matejki 1/5, Srodmiescle, Varsovie, Pologne.

Dispositif d'amarrage centré pour le contrôle des bassins flottants/289

Le représentant au Canada de l'organisme polonais de commerce extérieur Polservice offre à une société canadienne les droits de fabrication et de commercialisation, sous licence, d'un dispositif de mesurage continu pendant l'amarrage capable de déterminer sans hésitation la distance entre la coque et les parois du bateau. Le centrage et la distance entre les parois du bateau et le côté du bassin peuvent être contrôlés et évalués à l'aide de graphiques reproduits sur moniteur. Ce dispositif ne peut être assemblé que sur le

collection in the place from which all the devices of the dock can be operated makes it possible to shorten the docking cycle as well as to keep minimum necessary service. All the controlling activities and ship's docking precede the floating dock. The accuracy of measurement of the distance difference (centric docking) is ± 5 cm. Write: Dalimpex Ltd., 1000 Sherbrooke Street, West, Suite 1700, Montreal, Quebec H3A 1R2 and send a copy of your initial correspondence to: Commercial Division, Canadian Embassy, Matejki 1/5, Srodmiescle, Warsaw, Poland.

Buoyancy Operated Sunmill/289

American inventor offers a Canadian company a manufacturing and marketing license under his U.S. patent number 4,141,218 for a sun-powered engine which converts the sun's rays into mechanical energy and which can be used to power a generator or other mechanism having a rotating shaft. The engine, called the "Sunmill" by its inventor, uses heat-expanded trapped bubbles to provide buoyancy to vanes contained within a sealed drum thereby causing the drum to rotate. A shaft attached to the axis of the drum is used to transfer power to other devices, such as an electric generator. Write: Mr. Eric R. Rayboy, 1051G N.W., 80 Terrace, Margate, Florida 33063 and send a copy of your initial correspondence to: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Machinery and Process for Producing Fuel from Straw Pellets/289

British inventor offers drawings, technical know-how and data to a Canadian company interested in bringing a machine and process for producing fuel from straw pellets through the proto-type stage and, subsequently, to manufacture and market it under license. The machine converts a waste product into a combustible fuel which can be transported at a comparable cost to other products. The product burns with the same characteristics as dry hard wood, gives off little or no smoke and has approximately the same heat value. Ash is minimal. The design is such that the machine will work direct from the swath and produce a fairly solid pellet having a dimension of 5.94cm x 10cm of 200g weight. This is achieved in a novel way which allows a moving process to operate with a stationary time lag which does not slow down the operation. Also the method of converting the loose straw into a semi-solid is achieved in a manner that makes the energy from the input to be consumed at 100% for the total stroke, thereby causing input power to be reduced substantially. Approximately 150 h.p. is required to run a machine of design output of 5.4 t.p.h. Straw only is used, there are no glues or additives. Patents for the machine and process have been applied for. Write: Mr.

bassin flottant, sans pour autant affecter l'étanchéité du bassin. La centralisation du rassemblement des données dans la pièce où se trouvent toutes les commandes nécessaires au fonctionnement du bassin permet de raccourcir la période d'amarrage et exige un minimum d'entretien. Toutes les activités de contrôle et d'amarrage des bateaux s'effectuent dans le bassin flottant. La distance (amarrage centré) est mesurée avec une précision de ± 5 cm. Écrire à Dalimpex Ltée, 1000, ouest, rue Sherbrooke, bureau 1700, Montréal (Québec) H3A 1R2 et envoyer une copie de la correspondance initiale à la Division commerciale, Ambassade du Canada, Matejki 1/5, Srodmiescle, Varsovie (Pologne).

Moulin solaire fonctionnant suivant le principe de la flottabilité/289

Un inventeur américain offre à une société canadienne les droits de fabrication et de commercialisation, conformément à son brevet américain numéro 4,141,218, d'un moteur alimenté par l'énergie solaire qui convertit les rayons du soleil en énergie mécanique, et qui peut servir à entraîner une génératrice ou d'autres mécanismes dotés d'un arbre rotatif. Le moteur, appelé moulin solaire par son inventeur, utilise les bulles captées par la chaleur expansée, pour faire flotter des ailettes fixées à la paroi intérieure d'un tambour scellé, forçant ainsi le tambour à tourner. Un arbre, fixé à l'axe du tambour, sert à transférer l'énergie à d'autres appareils, comme une génératrice électrique par exemple. Veuillez écrire à M. Eric R. Rayboy, 1051G N.W., 80 Terrace, Margate, Floride 33063 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Machine et procédé de fabrication de combustible à partir de boulettes de paille/289

Un inventeur britannique offre les plans, les connaissances et les données techniques à une société canadienne désireuse de faire l'essai d'une machine et d'un procédé de production de combustible à partir de boulettes de paille et, par la suite, de les fabriquer et de les vendre sous licence. La machine convertit le rebut en combustible qui peut être transporté à un coût comparable à celui d'autres produits. Les caractéristiques de combustion des boulettes de pailles sont les mêmes que le bois dur. La paille dégage peu ou pas de fumée et elle possède à peu près la même valeur calorifique que le bois dur. Après combustion, il reste peu de cendres. La machine est conçue de façon à utiliser directement les andains pour en faire une boulette passablement solide de 5,94 cm x 10 cm pesant 200 g. Il s'agit d'une nouvelle technique qui permet d'utiliser une machine qui se déplace; il convient de remarquer que le décalage qui en découle ne retarde pas le travail. Cette méthode de conversion de la paille en vrac en matière semi-solide permet de consumer 100% de la matière première, ce qui réduit considérablement les quantités d'énergie nécessaires. Il faut environ 150 h.p. pour faire fonctionner une machine pouvant accepter 5,4 t/h. Cette machine ne fonctionne qu'à base de paille; donc, pas de colle, ni d'additifs. Une demande de brevet pour la machine et le procédé a été présentée. Écrire à M. Raymond John Parsons, New

Raymond John Parsons, New Manor Hall Farm, Gislingham, Eye, Suffolk P23 8JR, England and send a copy of your initial correspondence to: Commercial Division, Canadian High Commission, One Grosvenor Square, London, W1X 0AB, England.

Leg Levelling Device/289

American inventor offers a Canadian company the Canadian manufacturing and the worldwide marketing rights for a semi-automatic leg-levelling device which can be applied to all forms of step and extension ladders. The device overcomes disadvantages and shortcomings of prior devices by a combination of elements for applying locking pressure against a locking surface, including as a part of the elements, opposed elements biased apart by an intermediate spring limiting the distance that the opposite parts may be biased away from one another such that the entire combination may be withdrawn from contact with a surface to be pressed to thereby totally releasing the pressure thereon. Other advantages over prior devices: the aperture ensures equal balancing on all legs, even on inclined or stepped surfaces which is particularly useful when a machine is involved which creates a substantial vibration; a novel locking, latching and release mechanism; improved slanting device for semi-automatic leg levelling; high pressure applying levers for different legs commonly operated by a common pressure applying and pressure releasing latching device. Write: Mr. Gerard Berkowitz, 448 So. Hill Street, Suite 503, Los Angeles, California 90013, U.S.A. and send a copy of your initial correspondence to: Canadian Consulate General, 510 West Sixth Street, Los Angeles, California 90014.

Combined Binocular Radio Unit/289

American inventor offers a Canadian company the domestic manufacturing and the North American, British Empire and Asian marketing rights to his single unit which combines the functions of a radio and binoculars. It is patended in Canada and the United States. It is particularly designed for those who use binoculars in a professional or amateur activity and who may wish to support visual information with that obtained by audio means, such as spectators at sporting events, outdoorsmen, etc. Both units are encased within a single housing which includes eyepieces and lenses for the binoculars, means for extending and distending the lenses for superior focusing, and a means for activating and shutting off a radio. Provision for a single or multiple band radio could provide an aerial for extended range. A snap-on cover for protecting the unit when not in use and an earphone jack is provided so that the sound of the radio is removed from general exposure at a concert or the theater. The receiving means are solid state and the device can be battery powered for maximum portability. Write: Mr. Warren Dixon, 6434

Manor Hall Farm, Gislingham, Eye, Suffolk P23 8JR (Angleterre) et envoyer une copie de la correspondance initiale à la Division commerciale, Haut-commissariat du Canada, One Grosvenor Square, Londres W1X 0AB (Angleterre).

Mécanisme de réglage au niveau des pattes/289

Un inventeur américain offre à une société canadienne les droits exclusifs d'exploitation d'un mécanisme de réglage semi-automatique, qui peut être utilisé sur toutes formes de marches et d'échelles coulissantes. L'appareil contre tous les désavantages et les défauts des anciens appareils par une combinaison d'éléments qui appliquent un dispositif de verrouillage sous pression sur une surface; parmi ces éléments, mentionnons notamment, des éléments de polarisation maintenus de part et d'autre par un ressort intermédiaire limitant la distance entre les éléments, de sorte que l'ensemble peut sans danger ne plus toucher la surface d'appui, c'est-à-dire supprimer toute la pression. Le mécanisme présente d'autres avantages par rapport aux anciens: l'ouverture assure un équilibre parfait de toutes les pattes, même sur une surface inclinée ou dans un escalier, ce qui est particulièrement utile si l'on doit utiliser une machine qui crée beaucoup de vibrations; un nouveau dispositif de verrouillage, de loquet et de désengagement, un appareil d'inclinaison amélioré pour le réglage au niveau semi-automatique des pattes; des leviers appliquent une forte pression sur les différentes pattes, qui fonctionnent bien souvent au moyen de l'application d'une pression commune, et un mécanisme de désengagement du loquet par pression. Veuillez écrire à M. Gerard Berkowitz, 448 South Hill Street, Suite 503, Los Angeles, California 90013, U.S.A. et envoyer une copie de votre correspondance initiale au Consulat général du Canada, 510 West Sixth Street, Los Angeles, California 90014.

Unité combinée radio-binoculaire/289

Un inventeur américain offre à une société canadienne les droits de fabrication au pays, ainsi que les droits de commercialisation de son unité combinée, en Amérique du Nord, dans le Commonwealth et en Asie. L'unité, qui allie une radio à une binoculaire est brevetée au Canada et aux États-Unis. L'appareil est conçu précisément pour les personnes qui utilisent une binoculaire dans la pratique d'une activité professionnelle ou amateur et qui désireraient ajouter à leur information visuelle des renseignements sonores comme, par exemple, les spectateurs de manifestations sportives, les amateurs de plein air, etc. Les deux unités sont logées dans un coffrage unique qui comporte les oculaires et les lentilles de la binoculaire, un dispositif pour éloigner ou rapprocher la portée des lentilles, afin d'obtenir une meilleure focalisation, ainsi qu'un dispositif de mise en marche et d'arrêt de la radio. L'adjonction d'un circuit de radio à bande unique ou toutes ondes pourrait permettre de capter une gamme plus étendue d'ondes. Une enveloppe à bouton-pression sert à protéger l'unité lorsqu'elle n'est pas utilisée; celle-ci est en outre munie d'une prise d'écouteur de sorte que le son de la radio ne dérange pas les voisins de l'utilisateur pendant un

South King Drive, Chicago, Illinois 60637 and send a copy of your initial correspondence to: Canadian Consulate General, 310 South Michigan Avenue, Suite 2000, Chicago, Illinois 60604.

concert dans une salle de spectacle. Le dispositif de réception est entièrement transistorisé et des piles en feront un appareil portatif. Veuillez écrire à M. Warren Dixon, 6434 South King Drive, Chicago, Illinois 60637, et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 310 South Michigan Avenue, Suite 2000, Chicago, Illinois 60604.

Glassflex Method for Pumping Oil by Beam Lift Means/289

American inventor design-engineer offers a Canadian company having some experience in fiberglass production, exclusive manufacturing and worldwide marketing rights for new composite steel/fiberglass sucker rods and couplings for use in pumping oil from wells produced by artificial lift means which are 2.2 times lighter in weight than conventional steel sucker rods, are not damaged by electrolytic action, have appreciably reduced paraffin build-up, are non-corrosive and have controlled stress and fatigue characteristics. The sucker rods and couplings are made of light-weight and high strength materials, such as plastic, high tensile strength steel and tensioned steel strand (cable type) and sheaths of filament wound, resin bonded polyester. Patents have been filed in eleven countries including Canada and the United States. Write: Mr. Drexel T. Carlson, 2909 West 93rd Terrace, Leawood, Kansas 66206 and send a copy of your initial correspondence to: Canadian Consulate, 2001 Bryan Tower, Suite 1600, Dallas, Texas 75201.

Méthode Glassflex pour le pompage d'huile au moyen d'un appareil de levage à balancier/289

Un inventeur qui est concepteur-ingénieur américain offre à une société canadienne, ayant une certaine expérience de la production du fibre de verre, les droits de fabrication mondiaux exclusifs des tiges de pompage et des couplages d'acier et de fibre de verre servant à pomper le pétrole de puits, et ce par des moyens d'aspiration artificiels qui sont de 2,2 fois plus légers que les tiges de pompage d'acier conventionnelles, ne sont pas endommagés par l'électrolyse, accumulent beaucoup moins de paraffine, échappent à la corrosion et dont le stress et la fatigue sont contrôlés. Les tiges de pompage et les couplages sont faits de matériaux légers et résistants, tels le plastique, l'acier résistant à la traction et le toron d'acier à tension (genre câble) et des gaines de polyester enroulé de filaments liés par la résine. Des brevets ont été déposés dans onze pays, y compris le Canada et les États-Unis. Écrire à M. Drexel T. Carlson, 2909 West 93rd Terrace, Leawood, Kansas 66206 et envoyer une copie de votre correspondance initiale au Consulat du Canada, 2001 Bryan Tower, Suite 1600, Dallas (Texas) 75201.

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 CI-JOINTS 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 FRANCAIS.

Means and Method for Sweeping Material Floating on Water Using Vibrational Energy — **1,067,709/289** — **Méthode et appareillage pour l'enlèvement d'un produit flottant sur l'eau, par la voie d'ondes acoustiques**

An apparatus for sweeping contaminating material such as oil along the surface of a body of water using acoustic waves as a propelling force. The vibrational waves are produced by a device supported below the water surface and aimed upwardly towards a peripheral edge of the oil spill. A method of employing sound as a sweeping force. Write: Ocean Ecology Ltd., 2025 T.D. Edmonton Centre, Edmonton, Alberta, Canada

Apparatus for Producing Power from Water Waves — **1,067,794/289** — **Appareil de production de courant à partir des vagues**

An apparatus for producing power from water waves. The apparatus comprises a main pipe having at least one inlet and an outlet. A pump has an inlet to admit ambient water and an outlet that communicates with the inlet of the pipe. A valve controls the inlet to the pump. Another valve controls the outlet to the pump. A buoyancy vessel is attached to the pump. The buoyancy vessel has a slightly positive buoyancy to follow the motion of the waves. Reciprocation of the buoyancy vessel permits water to enter the pump, through the inlet, and then forces water from the outlet into the pipe. Write: Joseph A. Vriend, P.O. Box 505, Squamish, British Columbia V0N 3G0, Canada

Method for the Recovery of Blasting Oil from effluents from the Production of Nitroglycerine-containing Explosives — **1,067,912/289** — **Procédé de récupération de la nitroglycérine répandue dans les effluents suite à la production d'explosifs à base de nitroglycérine**

Blasting oil contained in the effluent from the production of explosives containing nitroglycerine is recovered by extracting with nitro-aromatics which make part of the final explosive, the resulting extract being used completely in the explosive production. Write: Dyno Industrier A.S., Tollbodgaten 22, Oslo 1, Norway

Combined Card and Board Game Apparatus — **1,067,920/289** — **Jeu de société comportant des cartes et un plateau en combinaison**

Disclosed is the preferred embodiment for simulating the various stages of the legal process of a criminal case. The game apparatus includes a board having marked spaces or areas constituting a path of progression about the board. The players advance game markers about the path of progression collecting a first set of cards and a second set of cards during a preliminary hearing portion of the play and in preparation for the trial portion of the play. After a player has fulfilled certain requirements, the preliminary hearing portion of play ceases and movement of the game markers on the path of progression stops. At this time, the players play the first and second set of cards obtained during the prelimary hearing portion of play to determine the outcome of the game play. Write: Wicks & Nemer, P.A., Suite 1407, Soo Line Building, Minneapolis, Minnesota 55402, U.S.A.; David L. Magiera, 3323 West Old Shabopee Road, Minneapolis, Minnesota 55431, U.S.A.

Thermocompressor Utilizing a Free Piston Coasting Between Rebound Chambers — **1,068,118/289** — **Thermocompresseur à piston libre coulissant entre deux chambres de renvoi**

A thermocompressor is disclosed as including a free piston which coasts upwardly and downwardly in a bypass region of a cylinder between cold and hot rebound chambers at cold and hot ends of the cylinder located at the top and bottom of the cylinder. A compressible fluid alternately flows downwardly and upwardly between the cold and hot cylinder ends via the cylinder bypass in response to the alternate upward and downward coasting of the piston. Write: Mark Schuman, 101 G Street, S.W., Washington, D.C. 20024, U.S.A.

High Strength Ferritic Alloy — **1,068,132/289** — **Alliage ferritique à haute résistance**

A high-strength ferritic alloy useful for fast reactor duct and cladding applications. Write: United States Department of Energy, Washington, D.C. 20545, U.S.A.

Method for Making Tubular Members and Product Thereof — **1,068,198/289** — **Méthode de fabrication de tubes, et produits connexes**

A process for making tubes, channels and other relatively thin-walled elongated shapes having a unique degree of dimensional accuracy and stability in which the part after being shaped and only approximately sized is mounted on a mandrel having a larger coefficient of thermal expansion than the part. The mandrel and the part are connected at their opposite ends so that expansion of the mandrel first causes elongation and concomitant lateral shrinkage of the part and then lateral expansion of the part so that it is triaxially hot worked to bring it to its final hot size from which the part contracts to its finished size at room temperature. For maximum freedom from residual stresses and dimensional stability thermal sizing is carrired out by heating to a temperature at least just above the recrystallization temperature of the part. Write: Carpenter Technology Corporation, 101 West Bern Street, Reading, Pennsylvania 19603, U.S.A.

Surround Sound Reproduction Systems — **1,068,219/289** — **Systèmes de reproduction sonore périphérique**

In a surround sound reproduction system the required number of power amplifiers is reduced by effecting at least part of the decoding operation by the manner in which the various loudspeakers are connected to the outputs of the power amplifiers while preserving linear independence of the signals fed to every set of three loudspeakers. Write: National Research Development Corporation, Kingsgate House, 66-74, Victoria Street, London, S.W.1, England, U.K.

Folded Membrane Dialyzer with Mechanically Sealed Edges — **1,068,221/289** — **Dialyseur à membrane pliée dont les bouts sont scellés mécaniquement**

A semipermeable membrane is folded in accordion fashion to form a stack of pleats and the edges are sealed so as to isolate the opposite surfaces of the membrane. The stack is contained within a case that provides ports for flow of blood in contact with

one surface of the membrane through channels formed by the pleats and also provides ports for flow of a dialysate through channels formed by the pleats in contact with the other surface of the membrane. Write: United States Department of Energy, Washington, D.C. 20545, U.S.A.

Method and Apparatus for Tuning High Power Lasers — **1,068,386/289** — **Appareil et méthode d'accord de lasers de grande puissance**

This invention relates to high power gas lasers that are adapted to be tuned to a desired lasing wavelength through the use of a gas cell to lower the gain at a natural lasing wavelength and "seeding" the laser with a beam from a low power laser which is lasing at the desired wavelength. This tuning is accomplished with no loss of power and produces a pulse with an altered pulse shape. It is potentially applicable to all gas lasers. Write: United States Department of Energy, Washington, D.C. 20545, U.S.A.

Leak Testing — **1,068,559/289** — **Essai d'étanchéité**

A method of leak testing a transport vessel for radioactive material is disclosed. Tracer gas (helium) and pressurizing driving gas (nitrogen), the latter in condensed form, are introduced into the transport vessel when in open condition. The tracer gas is introduced in a plastic bag which occupies a major part of the interior of the transport vessel and through which the tracer gas diffuses at a low rate. The liquid pressurizing gas is introduced in a smaller vessel. After the transport vessel has been sealed, the tracer gas diffuses out of the collapsing plastic bag and the pressurizing gas boils off resulting in a pressurized tracer gas atmosphere within the transport vessel. The transport vessel is now examined on the outside with respect to any tracer gas penetrating out through possible leaks in the transport vessel. Write: Aktiebolaget Atomenergi, Liljeholmsvägen 32, Stockholm, Sweden

Equalizer Hitch Bars Protector and Carrier — **1,068,654/289** — **Protecteur et support pour attelages compensateurs**

A trailer hitch equalizer bars protective and carrying device consisting of a covering for the two bar ends, coupled by a shock cord to a handle from which an adjustable bar attachment and chain hooks are attached. Write: Ronald J. Smitherman, 4655 Buxton Court, Burnaby, British Columbia, V5H 1J1, Canada

Portable Table Assembly — **1,068,757/289** — **Table portative**

Similar upper and lower bracket assemblies are detachably mounted on a tube. The spare tire and wheel of a car or truck are placed on the ground and the lower bracket assembly is clamped to the wheel center extending upwardly therefrom forming a base. A table top is then secured to the upper assembly. Write: John E. Campbell, Box 448, Teulon, Manitoba, Canada

Digital Encoding System — **1,068,823/289** — **Appareil de codage numérique**

Method and apparatus for the conversion to and from digital form of a PAL colour television signal is described in which the digital signals represent the error between a particular sampled value of the signal and a predicted value for that particular sample, the predicted value being based on a previously occurring sampled value together with the difference between two similarly spaced sampled values occurring in the preceding line, the spacing of the two pairs of sampled values in the two lines being such that the phase change of the sub-carrier, if unmodulated, is the same in both cases. A simple switch delay system is described for effecting the selection of the sampling instants in the preceding line. Write: Post Office, 23 Howland Street, London, W1P 6HQ, England

Tie Down Hook and Strap Therefor — **1,068,882/289** — **Crochet et sangle d'arrimage**

Resilient straps provided with a hook at each end and are used as tie-down straps for various purposes. These normally do not have any means for adjustment so that a variety of sizes is required to suit certain circumstances. The device consists of a hook formed from spring steel wire or the like and having an angulated other end adapted to receive a flat resilient strap of elastomeric material, in an adjustable manner, and to clamp same at the desired position on the strap against slippage during extension and use of the strap. Write: Steven R. Bates, 87 Norilyn Bay, Winnipeg, Manitoba, Canada

Installations de traitement d'un métal fondu — **1,068,901/289** — **Plant for Treating a Molten Metal**

On traite actuellement par injection de gaz tels que le chlore ou l'azote, les métaux fondus corrosifs tels que l'aluminium. L'installation perfectionnée comprend un dispositif de traitement immergé dans la partie ou le four contenant le métal fondu, une pompe électromagnétique, située au-dessus du dispositif de traitement agit à contre-pression pour agiter ce mélange et provoquer

la formation des scories dégagées dans un bassin de décantation. Application au traitement et au dégazage de l'aluminium. Écrire à: Groupement pour les Activités Atomiques et Avancées "GAAA" S.A., 20 Avenue Edouard Herriot, 92 350 Le Plessis Robinson, France

Photographic Enlarging and Developing Board with Processing Sink — **1,068,968/289** — **Panneau pour développements et agrandissements photographiques avec évier de traitement**

A device for enlargement and development of photographs and particularly adapted to efficiently produce posters in a conventional darkroom and to efficiently develop photographs of different sizes. Write: Réjean Guillemette, 715 Réal Street, La Tuque, Quebec, Canada

Method for Treating Organic and Inorganic Waste Material — **1,069,102/289** — **Méthode de traitement des déchets organiques et inorganiques**

Fibrous material having utility in the production of numerous and differing products is produced from refuse by a continuous process after separation and removal of undesirable constituents such as dirt, glass, ferrous and non-ferrous metals from the refuse. Write: Recyc Systems Inc., 550 Bellbrook Avenue, Xenia, Ohio 45385, U.S.A.

Heel Binding for Trail Skis — **1,069,143 /289** — **Attaches de talons pour skis de randonnée**

The present invention relates to a heel binding for use with a toe binding on a trail ski which heel binding comprises in combination an elongated elastic member suitably made of gum rubber adapted to be attached at each end thereof to a ski boot to form a closed loop suitably by means of a plate member formed of leather. Write: G. Theodore Buel, Kingsmere Road, Old Chelsea, Quebec, Canada

Dispositif d'allumage par arc électrique — **1,069,168/289** — **Electric Arc Ignition Device**

Dispositif d'allumage, par arc électrique, de produits inflammables. Le dispositif comporte une source d'alimentation à courant continu, un ensemble oscillateur constitué d'une première inductance et d'un circuit d'amplification relié en parallèle à la source d'alimentation, cet ensemble étant apte à générer une oscillation de fréquence donnée. Une seconde inductance est connectée en série avec des électrodes espacées l'une de l'autre et entre lesquelles est produit l'arc électrique à la fréquence donnée et sous une tension induite dans la seconde inductance par la première inductance, ces première et seconde inductances étant enroulées autour d'un noyau commun. Écrire à: François Lalonde, 6820 rue Chambord, Montréal, Québec, H2G 3C3, Canada

Solderless Electrical Contact — **1,069,197/289** — **Contact électrique sans soudure**

A solderless electrical contact is shown having first and second ends for connection to conductive elements joined by a central section having a C-shaped cross section with opposing arms tapering to a reduced end thickness for press-fit mounting into a printed circuit board aperture. Write: Litton Industries, Inc., 360 North Crescent Drive, Beverly Hills, California 90210, U.S.A.

Process for Aminating α, β-Unsaturated Amide Polymers — **1,069,247/289** — **Procédé pour l'amination des polyamides α, β-insaturés**

The present invention provides a process for the Hofmann rearrangement of α, β-unsaturated amide polymer by haloamidating the α, β-unsaturated amide polymer with a hypohalite in a medium of aqueous alkali solution and subjecting the resulting haloamide to rearrangement reaction, characterized by conducting the haloamidation reaction at -10 to 10° C and the rearrangement reaction at -10 to 15° C. Write: Ryoichi Senju, 41/18 Higashi-Wakahisa, Minami-ku, Fukuoka-shi, Fukuoka-ken, Japan

PAPER OR MICROFICHE COPIES OF THE FOLLOWING UNITED STATES PATENT APPLICATIONS THAT ARE AVAILABLE FOR U.S. AND POSSIBLY FOREIGN LICENSING MAY BE OBTAINED FROM NTIS, 5285 PORT ROYAL ROAD, SPRINGFIELD, VIRGINIA 22161 BY USING VISA, MASTER CHARGE, AMERICAN EXPRESS, NTIS DEPOSIT ACCOUNTS, CHEQUE OR MONEY ORDER IN $U.S. AT THE PRICES INDICATED.

ON PEUT SE PROCURER, AUX PRIX INDIQUÉS, DES COPIES, SUR PAPIER OU MICROFICHE, DES DEMANDES AMÉRICAINES DE BREVETS CI-APRÈS POUVANT FAIRE L'OBJET D'UN OCTROI DE LICENCE AUX ÉTATS-UNIS ET PEUT-ÊTRE À L'ÉTRANGER, EN S'ADRESSANT AU NTIS, 5285 PORT ROYAL ROAD, SPRINGFIELD (VIRGINIE) 22161 À L'AIDE DES CARTES VISA, MASTER CHARGE, AMERICAN EXPRESS, D'UN COMPTE DE DÉPÔT NTIS OU D'UN CHÈQUE OU MANDAT POSTAL EN DEVISES AMÉRICAINES.

Insect Repellents — **PAT-APPL-6-040 252/WG/289** — **Insecticides**
PAT-APPL-6-040 253/WG/289

This invention relates to insect repellents and, more particularly, to certain novel carboxamides containing an alicyclic moiety and their use as insect repellents. U.S. Department of Agriculture, Washington, D.C. Price: PC U.S. $4.50/MF U.S. $3.00. 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.

Alloy for Brazing Silicon to Metal — **PAT-APPL-968 873/WG/289** — **Alliage permettant le brassage du silicone au métal**

An alloy for brazing a silicon die to a gold-plate kovar header consists essentially of 19 to 21 weight percent tin and 0.6 to 0.8 weight percent silicon with the balance being gold. The alloy melts at a temperature below 200 C which is substantially lower than that of the conventional gold-silicon eutectic alloy. U.S. Department of the Air Force. Price: PC U.S. $4.00/MF U.S. $3.00. Write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Royal Road, Springfield 22161 and send a copy of your initial correspondence to: Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Low Friction Servo Valve — **PAT-APPL-6-035 574/WG/289** — **Vanne motorisée à basse friction**

The low friction servo valve has a housing which contains therein an input shaft, a pair of slidably mounted valve spools, and an actuator. Mechanical input is received by the input shaft in order to provide rotational displacement thereof. This displacement is transferred to a flapper portion on the input shaft which operates in conjunction with a pair of jet nozzles. Movement of the flapper causes pressure buildup in one of the jet nozzles which in turn causes sequential movement of the pair of valve spools to take place. Operation of the actuator is dependent upon movement of one of the valve spools, with this valve spool also being connected to the input shaft for assisting in the rotational displacement thereof as well as being connected to a feedback spring which forces the flapper to assume its neutral position thereby reducing the pressure buildup in one of the jet nozzles. U.S. Department of the Air Force. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Fluidic Pressure Ratio Sensor — **PAT-APPL-6-042 470/WG/289** — **Dispositif de mesure de la pression d'injection**

According to this invention, a device is provided for measuring the ratio of two pressures which is substantially independent of the absolute level of the pressures. The device can be used for measuring the pressure ratio between some internal engine station pressure and the engine inlet pressure while being relatively altitude insensitive. The device of the invention includes a flow channel with the inlet connected at a high pressure region and the outlet connected at a low pressure region. A plug having helical grooves is provided in the flow path to provide a helical fluid flow. The rotating flow is subjected to a sudden expansion in the flow channel to induce a nutation in the flow. A piezoelectric transducer, positioned adjacent the region of sudden expansion, senses the acoustic nutational frequency, which is a function of the pressure ratio across the device. U.S. Department of the Air Force. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

A Method for Synthesizing Fluorocarbon Halides **PAT-APPL-6-046 898/WG/289** **Méthode de synthèse d'halogénures de fluorocarbones**

A method for synthesizing fluorocarbon halides by effecting a reaction at ambient temperatures between a fluorocarbon acid or its derivative and a halogen fluorosulfate. U.S. Department of the Air Force, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Polyaromatic Ether-Keto-Sulfones and Their Synthesis **PAT-APPL-6-047 528/289** **Sulfones éther-céto polyaromatiques et leur synthèse**

Polymeric materials have become available that possess heat resistance and strength properties previously found only in metals. Additionally, the polymers are much lighter than metals, an important advantage where weight is a factor as in modern, high speed aerospace applications. In processing a polymer into a composite structure, the polymer must flow in order to impregnate the reinforcing substrate and mold it to the desired form. In order that such a composite may be suitable for use at temperatures higher than the polymer's softening point, a procedure is required for subsequently raising the softening point of the polymer higher than the desired maximum use temperature. U.S. Department of the Air Force, Washington, D.C. Price: PC U.S. $4.00/ MF U.S. $3.00. Write: Mr. George Dudravetz, 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.

The Synthesis of Fluorocarbon Esters **PAT-APPL-6-047 558/WG/289** **Synthèse d'esters de fluorocarbones**

A method is described for synthesizing perfluoroesters by effecting a reaction at subambient temperatures between a perfluorocarbon acid, or its derivatives, and a halogen fluorosulfate to produce an intermediate perfluoroacyl hypohalite which in turn is reacted with a suitable olefinic reactant to produce a perfluoroester. U.S. Department of the Air Force, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Synthesis of Acetylene-Terminated Compounds **PAT-APPL-6-048 322/WG/289** **Synthèse de matières à base d'acétylène**

The present invention resides in a process for preparing phenolic materials containing propargyl groups. In accordance with the process, a polyhydric, phenolic material is reacted with propargyl bromide in an aqueous sodium hydroxide solution. The reaction occurs at the interface between the aqueous basic solution of the phenolic material and the propargyl bromide which is insoluble in water. U.S. Department of the Air Force, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Multiple Diameter Wire Bundle Support **PAT-APPL-6-048 874/WG/289** **Porte-botte de fils à diamètres multiples**

A clamp is fabricated of a springy material having two curved arms attached at a common anchoring point with a series of equally spaced holes along the length of the arms. A first pin extending inwardly and located on the outer extremity of the first of the arms is adapted to engage one of the holes in the second arm, while a second pin extending outwardly and located on the outer extremity of the second of the arms is adapted to engage one of the holes in the first arm. The arms may be of any convenient size and length to roughly define curved concentric loops for accommodating the required number and diameter of wires therein. U.S. Department of the Air Force. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Oxide Passivated Mesa Epitaxial Diodes with Integral Plated Heat Sink **PAT-APPL-6-050 272/WG/289** **Diodes épitaxiales mesa rendues passives par l'oxyde avec évier à chauffage plaqué intégral**

The present invention is directed to a semiconductor device and a method by which the device may be fabricated. The device comprises an oxide passivated mesa epitaxial diode with an integral heat sink and is fabricated in such a manner that the junction is passivated by the thermal growth of an oxide layer over the junction region without causing a reaction between the contact metals and the surrounding environment. In one form, the diode takes the shape of a mesa upon a supporting structure of thermally conductive metal, the latter serving both as an electrical contact and thermal heat sink. U.S. Department of the Air Force,

Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Liquid Storing and Releasing Integrated Assembly — **PAT-APPL-6-052 161/WG/289** — **Assemblage intégré pour l'emmagasinage et la décharge de liquides**

Alternate layers of an external fluid impervious member, and of internal perforated honeycomb core members, perforated face sheet members, and fine wire mesh screen members are bonded together to form an integrated assembly, in the form of a sandwich panel, which can be contoured to any desired preselected shape. The core members and the face sheet perforations allow a fluid to fill the honeycomb cores, while the screen members act as a retention (surface tension) system to keep any vapor present from penetrating to the liquid-filled cores. U.S. Department of the Air Force, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Re-Entrant Insulator Design for Geiger-Mueller Tube of the Like. — **PAT-APPL-883 552/WG/289** — **Conception d'isolateurs d'extrémités pour tubes de type Geiger-Mueller**

This patent application describes an improved cylindrical Geiger-Mueller tube with a life at least ten times greater than that heretofore obtainable. The tube includes a re-entrant insulator at each end of the tube to support the coaxial anode and to shield the cathode from the Geiger discharge. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Method of Extending the Storage Life in the Frozen State of Precooked Foods — **PAT-APPL-959 264/WG/289** — **Méthode de prolongement de la durée de conservation à l'état congelé des aliments précuisinés**

A method of extending the storage life of cooked foods, such as meats, poultry and fish in the frozen state comprising, cooking the food, coating the cooked food with an edible coating the composition of which comprises the calcium salt of carrageenan, freezing the food coated with said calcium salt of carrageenan, and storing said coated food in the frozen state. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Dental Liquid Entrees and Method of Making — **PAT-APPL-959 265/WG/289** — **Méthode de fabrication et appareil permettant de consommer des aliments liquides**

Dental liquid entrees and a method of making the same comprising grinding and cooking meats, then freeze dehydrating the cooked meat, and thereafter pulverizing the freeze dehydrated meat in a vertical cutter-mixer or in a blender to reduce the particle sizes to 0.5 mm or less, then mixing the pulverized meat with water and other ingredients contributing to the flavor, the nutritional balance, and the texture of the liquid entrees, which must be capable of being drawn into the mouth through straws. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Self-Adaptive Mobile Subscriber Access System Employing Time Division Multiple — **PAT-APPL-970 608/WG/289** — **Système automatique mobile d'accès fonctionnant par accès multiple par répartition dans le temps**

The time division multiple access mobile communications system employees a self-adaptive feature and perfect noise codes to enable utilization of the system. The self-adaptive feature permits switching to vacant channels as interfering users move to an

occupied channel. The noise codes employed are of the type termed code mates having correlation functions which upon detection provide an impulse autocorrelation function. The described arrangement enables random access to be accomplished with minimal interference between users. Large improvements in signal-to-noise power ratio and in signal-to-jamming power ratio will be seen to result. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Electronic Intruder Detection System **PAT-APPL-973 402/WG/289** **Système électronique de détection des intrusions**

The electronic detection system for detecting intruders employs a transmission line as a sensing element. In one embodiment, the transmission line is a modified surface-wave transmission line, for example, a Goubau line, which is positioned about the perimeter of the area to be protected. An intruder in the field of the line causes an RF reflection back toward the source, which reflection may be detected by Doppler range-gating techniques. In other embodiments of the invention, the transmission line is an insulated, twisted wire pair or a deformable transmission line. In some instances, the transmission line may be replaced with an active or passive pressure line. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.50/MF U.S. $3.00. 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.

Radar Antenna **PAT-APPL-973 642/WG/289** **Antenne de radar**

An antenna is described for range-gated, pulse doppler, radar systems. The antenna includes first and second, shortened, half-wave dipoles and first and second reflecting screens. One dipole is fed through a fixed 22 1/2 degree phase-shift network while the other is fed through a 45 degree phase-shift network that can selectively be switched in and out of the feed circuit. A counter which uses a shift register with linear feedback which is connected to generate a maximal length pseudo-random sequence. When a given state in the sequence is sensed, certain shifts are inhibited, and the register is returned to the all-one state. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Microwave Oscillator for Microwave Integrated Circuits Applications **PAT-APPL-6-019 193/WG/289** **Oscillateur pour hyperfréquences entrant dans la fabrication de circuits intégrés à hyperfréquences**

The invention discloses a means for obtaining a high Q oscillator which is compact and is adapted to be readily incorporated into known forms of microwave integrated circuits, e.g. a parametric amplifier. The oscillator which for example may comprise a pump oscillator for a parametric amplifier includes efficient means for coupling to microstrip without destroying the high Q of the oscillator circuit. The negative resistance elements which may be, for example, a Gunn diode, IMPATT diode or the like is located in a resonator cavity which is a combination of radial transmission line cavity and a rectangular waveguide cavity. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.50/MF U.S. $3.00. 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.

Resonant Subcavity Differential Spectrophone **PAT-APPL-6-019 688/WG/289** **Spectrophone différentiel à cavité secondaire résonnante**

The highly sensitive spectrophone assembly of the subject invention simultaneously and continuously provides an accurate measure of the absorption of electromagnetic radiation by atmospheric gases and particulate matter by providing successive flow through chambers. The gases and particulate matter pass through the first chamber, are directed through a filter where the particulate matter is removed, leaving the gases to flow through the second chamber. The signal representative of the absorption of energy is generated in each chamber and fed into a differential amplifier, to provide an accurate indication of the particulate matter in the atmosphere being monitored. Grounding one side yields a signal attributable to the gaseous absorption. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Keeper for Load Carrying Equipment **PAT-APPL-6-019 791/WG/289** **Attaches pour charges portées sur le dos**

The patent application describes a keeper for detachably securing load carrying means to service belts such as those worn by the military. The keeper is constructed entirely of metallic wire of suitable diameter and strength, which is bent to form two substantially parallel loops having extensions thereof in the form of substantially parallel arms which along with the loops fit around a service belt, the free ends of the metallic wire being formed into ears which can pass between one pair of parallel arms and snap back behind these arms to lock the keeper. A latch, also made of the same type of wire as the keeper, slides along the arms to latch and unlatch the arms, as desired by the wearer, for maintaining the keeper in its locked condition or for permitting it to be readily unlocked when the wearer desires. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Wideband Antenna with Frequency Dependent Ferrite Core Inductor **PAT-APPL-6-028 934/WG/289** **Antenne à bande large munie d'un inducteur de fréquences à noyau de ferrite**

The patent application relates to a low profile wideband VHF antenna wherein impedance matching over the required operating band is provided without the use of multiple circuit components, for tuning switched into and out of the antenna by an assembly of switch contacts. The antenna is comprised of an end and preferably a bottom fed vertical radiating rod or monopole element whose upper end is terminated in a substantially flat circular top capacitance disc via a frequency sensitive inductance constructed of a ferrite core inductor whose mu characteristic varies approximately inversely with respect to frequency. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Piezoelectric Polymer Heat Exchanger **PAT-APPL-6-030 966/WG/289** **Échangeur de chaleur à base de polymère piézoélectrique**

Disclosed is apparatus for providing for increased heat transfer efficiency of a heat exchanger by separating contiguous fluid conductive channels by means of a flexible sheet fabricated from a piezoelectric polymer. An electrode pattern of predetermined configuration is applied to one or both sides of the piezoelectric sheet and an electrical signal applied thereto in order to set the sheet into a flexual resonance condition whereupon a standing wave pattern is established to not only break up the boundary layer of fluid which adheres to each side of the sheet, but also minimizing the thickness of the laminar sub-layer. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.50/MF U.S. $3.00. 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.

Permanent Magnet Materials **PAT-APPL-6-033 911/WG/289** **Matières à aimant permanent**

This invention relates in general to new and useful compounds of the general formula Sm2-xRExCo17-yMny wherein RE is a heavy rare earth element, wherein x has a value greater than zero and less than 0.7, and wherein y has a value less than 2.1; and in particular to the use of these compounds as high-energy product, low temperature coefficient permanent magnet materials suitable for use in millimeter wave/microwave devices. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Method of Treating a Permanent Magnet Alloy **PAT-APPL-6-033 940/WG/289** **Méthode de traitement d'un alliage d'aimant permanent**

This invention relates in general to a method of treating a permanent magnet alloy and, in particular, to a method of lowering the reversible temperature coefficient of magnetization of the permanent magnet alloy Sm2Cul.6ZrO.16Fe3.3Co12. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Tube with Bonded Cathode and Electrode Structure and Getter — **PAT-APPL-6-037 256/WG/289** — **Tube muni d'une cathode, d'une électrode et d'un piège chaud liés**

The variety of technologies that have been applied in the development of a bonded grid cathode are described. These include chemical vapor deposition of tungsten, molybdenum, iridium BN, and Si3N4 on both sides of a sintered tungsten cathode disk. Zirconium and titanium getters have been used to eliminate nitrogen evolution problems. The getter plates are also used as heat shields for the bonded heater. Films of Si3N4 have been added to the insulation to prevent calcium and barium diffusion into the layer and maintain adequate resistivity and breakdown strength. Plasma etching was introduced as a method of removing Si3N4 from the cathode pores. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.50/MF U.S. $3.00. 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.

Bonded Cathode and Electrode Structure with Layered Insulation and Method of Manufacture — **PAT-APPL-6-037 257/WG/289** — **Cathode et électrode liées avec isolant étagé et méthode de fabrication**

An object of the invention is to improve the longterm resistance stability of the insulating layer between the cathode and the grid (and also the heater) in a bonded grid-cathode tube. Features of the invention relate to the structure and manufacture method in which diffusion barriers of silicon nitride are incorporated in the insulating layer. In particular, with a principal insulator of boron nitride, thin films of silicon nitride are used between it and the cathode, and also between it and the grid. As a further detail feature, an additional thin film of BN is used for stress relief next to the cathode. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.50/MF U.S. $3.00. 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.

Method of Making A Quartz Resonator — **PAT-APPL-6-040 366/WG/289** — **Procédé de fabrication d'un résonateur au quartz**

The general object of this invention is to provide a method of making a quartz resonator that can consistently survive very high shock levels. A further object of the invention is to provide such a method in which the quartz resonator will withstand exposure to high temperatures, thus permitting the use of the high temperature processes commonly employed in the fabrication of high precision resonators. It has now been found that the aforementioned objects can be obtained by preparing a chemically polished quartz plate, applying metallic contacts to the edge of the chemically polished quartz plate, placing the plate in an enclosure fitted with at least 3 mounting clips, securing the plate to the clips with an electrically conductive bonding agent, cleaning the assembly, depositing metallic electrodes onto both faces of the plate until the desired frequency is reached, and hermetically sealing the enclosure. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Fast Warm-Up Over Controlled Oscillator — **PAT-APPL-6-042 654/WG/289** — **Oscillateur contrôlé pour fourneau à réchauffement rapide**

A process and apparatus are disclosed for heating a piezoelectric crystal resonator by infrared radiation. The invention described herein may be manufactured and used by or for the Government for governmental purposes without the payment of any royalties thereon or therefor. U.S. Department of the Army, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Fluidized Bed Systems — **PAT-APPL-798 544/WG/289** — **Systèmes de lit fluidisé**

A selected fraction of solid particles having sizes, densities, and/or weights in a selected range is separated from a mixture of articles by fluidizing the mixture in a bed using a fluidizing fluid to cause particles including the selected fraction to pass out of the top of the bed; conveying the particles in a conveying fluid to a suitable separator (e.g. a cyclone) wherein the selected particles fraction is separated from smaller, lighter particles; injecting the separated fraction from the separator into a utilization zone (e.g. a fluid bed reactor); entraining other particles in the conveying fluid to another separator (e.g. a cyclone) to produce

solids-free conveying fluid which is recirculated for re-use. The original particles mixture may be obtained by separation (e.g. in a cyclone) from fluid leaving the utilization zone. U.S. Environmental Protection Agency. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Hopper **PAT-APPL-876 099/WG/289** **Trémie**

The non-blocking hopper for solids comprises of a downwardly divergent, hollow frusto-conical bottom part having a maximum diameter R and a discharge aperture of diameter D at the narrowest (bottom) end. At least two V-shaped notches are formed symmetrically around the bottom part with their widest ends of width b and open to the discharge aperture, their apices being remote from the periphery of the aperture at a distance r therefrom. The following relationships are observed r = or > 0.3R; b = or > 0.5D, and the angle between the axis and wall of the frustum is no greater than the angle of repose of the solids. U.S. Environmental Protection Agency. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Conversion of Sulfur-Containing Fuel to Sulfur-Free Gases **PAT-APPL-911 549/WG/289** **Conversion de combustible contenant du soufre en gaz exempt de soufre**

The amount of sulfur compounds in combustible gas produced by partial oxidation of a sulfur-containing fuel, particularly sulfur-containing mineral oil, in a fluidized bed of particles comprising alkaline earth metal oxide, can be maintained below a desired level by expedients such as increasing the amount of alkaline earth metal oxide relative to the sulfur in the fuel. These and other possible expedients may attain limiting values due to excessive pressure drop in the fluidized bed and/or reduced combustible gas production. It was found that the amount of sulfur compound may be maintained below a desired level, when a limiting operating condition has been attained or approached by adding fine solids into the combustible gas product. The fine solids may be recovered and re-used, e.g., by injection into the fluidized bed. U.S. Environmental Protection Agency, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Remote Controlled Air Sampler **PAT-APPL-920 944/WG/289** **Échantillonneur d'air téléguidé**

A portable, remote controlled air sample is described for measuring the solid, liquid, and gaseous emissions from sources such as a fossil fuel power plant, or ambient air. The sampler comprises a pump operated suction head movably mounted on a guide means for sucking a sample of air through a selected portion of an air filter strip, a motor operated translating means for translating means for translating the suction head along the guide means, and a radio operated, remote control system for selectively actuating the translating means and suction head. The preferred embodiment of the sampler is sufficiently light-weight to be suspended from a buoyant balloon six feet in diameter or less, or having a gas capacity of 115 cubic feet or less. U.S. Environmental Protection Agency, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Process **PAT-APPL-6 015 079/WG/289** **Procédé**

A process is described for fixing arsenic bearing material which comprises the steps of: adding the arsenic bearing material to a molten slag; mixing the arsenic bearing material into the molten slag to form a slag mixture; and permitting the slag mixture to solidify to form a composite. A process for fixing arsenic bearing materials is selected from the group comprising: metal arsenates, metal arsenites, mixtures of metal arsenates and arsenites, and arsenic products precipitated from aqueous solutions in a slag selected from the group comprising; reverberatory slag, electric furnace slag, converter slag, lead blast furnace slag, zinc fuming furnace slag, iron blast furnace slag, steel slag, or mixtures thereof. The process comprises the steps of: melting the slag to form a molten slag; mixing the arsenic bearing material with the molten slag to form a slag mixture; and, permitting the slag mixture to solidify to form a composite. The composites formed by the process are also disclosed. U.S. Environmental Protection Agency. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Two Stage Catalytic Combustion Process and Apparatus — **PAT-APPL-6-015 314/WG/289** — **Procédé et appareil de combustion catalytique en deux étapes**

This invention relates in general to catalytic combustion apparatus and processes, e.g., for application in firetube and watertube boilers and for gas turbines. Characteristically, operation of such combustors at high pressures leads to high combustion intensities and attendant high formation of thermal NOx. Moreover, the level of conversion of fuel nitrogen to NOx is also high in such a combustor. U.S. Environmental Protection Agency, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Method and Apparatus for Destroying Organic Matter to Facilitate Trace Inorganic Element Analysis — **PAT-APPL-964 969/WG/289** — **Méthode et dispositif de destruction des matières organiques pour faciliter l'analyse des oligoéléments inorganiques**

The apparatus of the present invention includes a quartz flask for containing 71% nitric acid and the organic matrix to be destroyed, a Soxhlet extractor disposed above the flask, and a Friedrich coldfinger reflux condenser disposed above the extractor. A Meeker or Fisher burner is employed to provide heat to the flask and distill the acid, and the vapors are condensed within the condenser and transmitted to the extractor. An adjustable volume displacement cylinder is disposed within the extractor so as to control siphoning of the acid condensate from the extractor back into the flask. The distillation-condensation-siphoning procedure of the present invention is automatically operative once the displacement cylinder is adjusted. The organic matrix is completely destroyed so as to produce a clear, colorless acid solution within which the trace inorganic salts are disposed. The acid solution may be subsequently qualitatively and quantitatively analyzed in accordance with known techniques. U.S. Department of Health, Education, and Welfare. Price: PC U.S. $4.50/MF U.S. $3.00. 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 original correspondence to: Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Enhancement of Cholesterol-Combining Properties of Saponins — **PAT-APPL-6-031 970/WG/289** — **Amélioration des propriétés de la saponine dans le traitement des maladies causées par le cholestérol**

The acid hydrolysis of saponins from a source such as alfalfa roots or tops is disclosed. Such treatment has been found to enhance significantly the cholesterol combining properties of the saponins, resulting in increased ability of the saponis to inhibit cholesterol absorption and to alleviate hypercholesterolemia. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Ultrasensitive Enzymatic Radioimmunoassay Method — **PAT-APPL-6-044 260/WG/289** — **Méthode d'épreuve de radio-immunité enzymique ultrasensible**

The present invention relates to a method for quantitatively measuring an immunosystem reactant, specifically, an antigen or an antibody. More particularly, the present method is an ultrasensitive enzymatic radioimmunoassay method. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.50/MF U.S. $3.00. Write: Mr. George Kudravetz, Product Manager, NTIS, United States Department of Commerce, 5285 Port Roya! Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to: Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102.

Toroidal Coil Planet Centrifuge — **PAT-APPL-6-045 052/WG/289** — **Centrigugeuse à mouvement planétaire fonctionnant à l'aide de rouleaux toroïdaux**

The present invention relates to centrifugal separation, and, more particularly, to toroidal coil centrifugation for the separation of particles and solutes from liquids. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Depth-Sense Perception and Two-Point Discrimination Aesthesiometers — **PAT-APPL-6-046 431/WG/289** — **Aesthésiomètre à deux points servant à la perception en profondeur**

A finger tip sensitivity-testing instrument consisting of a tunnel-shaped track member used as a support for the hand for forearm of a patinet, the track member having a longitudinal cavity slidably receiving a feeler bar which is formed on its top surface with surface profile structure varying progressively longitudinally in sensible magnitude. The patient's finger is received in a notch in the edge of the tunnel top wall so as to allow the finger to engage the surface profile bar as it is extended from the tunnel. Graduations are inscribed along the side margin of the feeler bar which pepresent specific increments of differential surface profile relative to the mouth of the tunnel. The feeler bar rests slidably on a spring-supported plastic thin plate, thus simulating a floating support surface for the feeler bar. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Apparatus and Method for Determining Serum Concentrates of Metabolites by Monitoring Dialysate Fluid — **PAT-APPL-6-047 786/WG/289** — **Appareil et méthode de mesure par dialyse de la teneur en sérum des métabolites**

The present invention relates to an apparatus and method for the indirect monitoring of serum metabolites without entering a sensor into the patient's bloodstream or withdrawing blood from the patient. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Process for the Fractionation of Cells — **PAT-APPL-6-048 637/WG/289** — **Méthode de fractionnement des cellules**

The patent application is a method of cell separation by agglutination using lectins or agglutinins which selectively bind to cells devoid of graft versus host activity and suitable for transplantation without undesirable side effects. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Anti-Neoplastic Use of 1,4-Bis (Substituted Aminoalkyl Amino)-Anthraquinones — **PAT-APPL-6-050 100/WG/289** — **Utilisation antinéoplastique des anthraquinones 1,4-Bis (substitut des aminoanthraquinones d'aminoalcoyle)**

This patent application discusses a method for treating animal neoplasms by administering to a neoplasm-bearing animal host an antineoplastic amount of a 1,4-bis-substituted-9-10-anthracenedione. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Anti-Neoplastic Use of 1,4-Bis (Substituted Aminoalkyl Amino)-Anthraquinones — **PAT-APPL-6-050 330/WG/289** — **Utilisation antinéoplastique des anthraquinones 1,4-Bis (substitut des aminoanthraquinones d'aminoalcoyle)**

This patent application pertains to a method for treating animal neoplasms by administering to a neoplasm-bearing animal host an antineoplastic amount of a 1,4-bis-substituted-9-10-anthracenedione. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Everting Tube Device with Relative Advance Control — **PAT-APPL-6-052 110/WG/289** — **Dispositif réversible (tube) pour examen relativement poussé**

The invention relates to extensible body exploration probe devices, and more particularly to a probe device for introducing an elongated diagnostic tool or examination implement into a body cavity through a body opening. U.S. Department of Health,

Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Steroidal Cyclotriphosphazenes **PAT-APPL-6-052 728/WG/289** **Cyclotriphosphazènes stéroïdaux**

This invention relates to novel 3- or 17-cyclotriphosphazene derivatives of steroids, which can slowly hydrolyze to release 3- or 17-hydroxy steroids. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.50/MF U.S. $3.00. 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.

(N-phosphonacetyl-L-aspartato) (1,2-diamino-cyclohexane) platinum (II) or Alkali Metal Salt **PAT-APPL-6-058 287/WG/289** **(N-phosphonacetyle-L-aspartato) (1,2-diamino-cyclohéxane) platine (II) ou sel métallique alcalin**

(N-phosphonacetyl-L-aspartato) (1,2-diaminocyclohexane) platinum (II) or alkali metal salt thereof has shown antileukemic activity in mice against murine leukemia L1210. It is effective in dosages of 5-60 mg/kg of body weight and is potentiated in a treatment with cyclophosphamide (CY) (50 mg/kg of body weight) to which may be added hydroxyurea (HU) (1000-1500 mg/kg of body weight). U.S. Department of Health, Education, and Welfare. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Methods for the Use of Orally Administered 13-Cis-Retinoic Acid for the Treatment of Dermatopathies **PAT-APPL-6-063 770/WG/289** **Méthode d'utilisation par voie buccale de l'acide 13-Cis-rétinoïque pour le traitement de la dermatopathie**

This invention relates to a method of administering 13-cis-retinoic acid at a dose level which preserves the beneficial effects of clearing nodulocystic and conglobate acne and prevents the progress of basal cell carcinomas of the skin, while at the same time, minimizes or effectively eliminates the undesirable side effects usually associated with administration of large doses of vitamin A. U.S. Department of Health, Education, and Welfare, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Leaching Gold-Silver Ores **PAT-APPL-6-029 953/WG/289** **Lessivage du minerai d'or et d'argent**

Percolation leaching of gold of silver ores, tailings, 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 gold or silver values. Department of the Interior, Washington, D.C. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Regeneration of Waste Metallurgical Process Liquor **PAT-APPL-6-037 089/WG/289** **Régénération du liquide résiduel du procédé métallurgique**

Exhausted aqueous hexavalent chromium solutions containing trivalent chromium ions and extraneous metal ions are oxidized by placing said exhausted Cr+ 6 solution in the anode compartment of an electrolytic cell as the anolyte, said cell being separated into anodic and cathodic compartments by at least one cation selective membrane, said cathode compartment containing a catholyte, and impressing a direct current across the anode and cathode of said cell of a difference in potential sufficient to promote the oxidation of trivalent chromium in the solution in said anode compartment to hexavalent chromium while extraneous metal ions in the anolyte solution migrate through said membrane into the catholyte of said cathode compartment where copper ions are plated onto said cathode. U.S. Department of the Interior. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Process for Recovering Ni(II), Cu(II) and Co(II) from an Ammoniacal-Ammonium Sulfate Leach Liquor — **PAT-APPL-6-044 434/WG/289** — **Procédé de récupération du nickel, du cuivre et du cobalt d'un liquide de lessivage composé de sulfate d'aluminium**

This invention relates to the recovery of nickel, copper, and cobalt from an ammoniacal-ammonium sulfate leach liquor, and in particular relates to the recovery of these metal values from an ammoniacal-ammonium sulfate leach liquor produced from laterites containing less than 1.2 percent nickel. U.S. Department of the Interior. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Process for Extracting Uranium Values from a Uranium-Containing Carbonaceous Ore — **PAT-APPL-6-044 814/WG/289** — **Procédé d'extraction des éléments d'uranium d'un minerai charbonneux contenant de l'uranium**

It is an object of the present invention to provide a process that does not require oxidation of the carbon in a carbonaceous ore prior to leaching uranium values from the ore. A further object is to provide a process for the recovery of uranium from carbonaceous ores that is economical from an energy standpoint and from a time standpoint. Another object is to provide a process for the recovery of uranium from carbonaceous ores that does not result in excessive consumption of sulfuric acid and that does not require large quantities of added oxidant. An even further object is to provide a process for recovering uranium from carbonaceous ores that does not result in the solubilization of considerable organic material and thus permits a reasonably facile solid-liquid separation after leaching. U.S. Department of the Interior. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Automatic Flowmeter Calibration System — **PAT-APPL-6-051 274/WG/289** — **Système d'étalonnage de débitmètre automatique**

A system for automatically calibrating the accuracy of a flowmeter includes a calculator capable of performing mathematical functions responsive to receiving data signals and function command signals. A prover cylinder which includes a piston is provided for measuring the temperature, pressure, and time required for accumulating a predetermined volume of fluid. Along with these signals, signals representing the temperature and pressure of the fluid going into the meter are fed to a number of data registers. Under control of a process controller, which includes a program counter, a programmable read only memory, and decoder logic system, the data registers are read out and the information is fed through a data select circuit to the calculator. Command signals are also produced by a function select circuit and are fed to the calculator set indicating the desired function to be performed. The calculator set performs the calculation and generates a readout indivating the flow rate of the fluid. This reading is, then compared with the reading produced by the flowmeter. Price: PC U.S. $4.00/MF U.S. $3.00. Write: NASA, John F. Kennedy Space Center, Mail Code: SA-PAT, Cocoa Beach, Florida 32899 and send a copy of your initial correspondence to: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Containerless High Temperature Calorimeter Apparatus — **PAT-APPL-6-053 569/WG/289** — **Calorimètre sans récipient à haute température**

An instrument is disclosed for measuring high temperature thermophysical properties of materials which includes a unique containerless heating apparatus wherein the specimen is suspended and heated by electron bombardment. Price: PC U.S. $4.00/MF U.S. $3.00. Write: NASA, Marshall Space Flight Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial correspondence to: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Solar Tracking System — **PAT-APPL-6-060 435/WG/289** — **Système de collected de l'énergie solaire**

A solar collector is angularly oriented by motor wherein the output of two side-by-side photodetectors are discriminated as to three ranges, corresponding to a low light or darkness condition by east control circuit to light intensity lying in an intermediate range by pointing control circuit; and to light above an intermediate range, direct sunlight, by differential tracking circuit. The first output drives the motor to a selected maximum easterly angular position to await sunrise; the second enables the motor to be driven westerly at the earth rotational rate when clouds are present which prevent accurate tracking; and the third output,

actually the separate outputs of the two photodetectors, differentially controls the direction of rotation of motor through east drive relay and west drive relay to effect tracking of the sun. Price: PC U.S. $4.00/MF U.S. $3.00. Write: NASA, Marshall Space Flight Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial correspondence to: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Improved Synthesis of Polyformals **PAT-APPL-6-054 501/WG/289** **Synthèse améliorée des polyformes**

Formals of CH2OH(CHOH)nCH2 polyols (n = 2 to 4) are prepared in less than 15 minutes by heating to about 125 C, a mixture of e.g. sorbitol and paraformaldehyde in slight excess (5 to 10%), in the presence of e.g. sulfuric acid in catalytic quantities. Elution with methanol and filtration yield the pure solid cyclic triformal. The process can be carried in stages, using most stoichiometric quantities of paraformaldehyde, but without any change in overall heating time. Price: PC U.S. $4.00/MF U.S. $3.00. Write: NASA, Ames Research Center, Mail Code: 200-11A, Moffett Field, California 94035 and send a copy of your initial correspondence to: Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111.

An Improved Synthesis of 2, 4, 8, 10-Textroxaspiro (5.5) Undecane **PAT-APPL-6-054 502/WG/289** **Synthèse améliorée de l'undécane tétroxaspiro 2, 4, 8, 10 (5,5)**

Pentaery thritol is converted to its diformal, 2,4,8,10-tetrox aspiro (5.5) undecane, by heating it to a temperature within the range of about 110 to 150 C for a period of up to 10 minutes, in the presence of a slight excess of paraformal-dehyde and of a catalytic quantity of an acid catalyst such as sulfuric acid. The reaction is carried out in two steps, by forming first the mono-formal, then the diformal. The total reaction time is about 10 minutes and yield of diformal are greater than 90%. Price: PC U.S. $4.00/MF U.S. $3.00. Write: NASA, Ames Research Center, Mail Code: 200-11A, Moffett Field, California 94035 and send a copy of your initial correspondence to: Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111.

Spine Immobilization Method and Apparatus **PAT-APPL-6-057 526/WG/289** **Méthode d'immobilisation des vertèbres et appareils**

A spine immobilization apparatus which uses a normally flat, flexible bladder filled with beads or microballoons is described. The beads form a rigid mass when the pressure within the bladder is decreased below ambient through the use of a suction pump. The bladder can be conformed to the victim's torso to provide the desired restraint. Price: PC U.S. $4.00/MF U.S. $3.00. Write: NASA, Ames Research Center, Mail Code: 200-11A, Moffett Field, California 94035 and send a copy of your initial correspondence to: Canadian Consulate General, One Maritime Plaza, Alcoa Building, Suite 1100, Golden Gateway Center, San Francisco, California 94111.

Seawater Battery **PAT-APPL-6-015 092/WG/289** **Batterie pour immersion en eau de mer**

A high energy multicell seawater activated battery with provision for uniformly distributing a desired concentration of the electrolyte for maximum power output. When the battery is submerged to a predetermined depth, seawater is admitted into a mixing chamber where it flows through a plurality of intercommunicating compartments each containing an electrolyte of pelletized potassium hydroxide (KOH) which dilutes to form an ionized solution. The solution flows into a plurality of evacuated cells to establish an ionic flow from a nickel oxide hydroxide (NiOOH) cathode to a zinc (Zn) anode in each cell. An outlet valve in each cell releases the solution to reduce the internal cell pressure when the external pressure decreases as when the battery is retrieved. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Synthesized Sinusold Generator **PAT-APPL-6-020 902/WG/289** **Générateur de sinusoïdes synthétisé**

A synthesized sinusoid generator is described for delivering to an acoustic driver high power of a discreet spectral component form a spectrum including the discreet spectral component and its harmonics. The generator uses a plurality of unity gain

switching amplifiers and involves summing various stages thereof at full power. This is accomplished by switching on and off various unity gain switching amplifiers as a function of time of the fundamental, thus necessitating only generation of the fundamental frequency and a delay network to switch on and off the designated unity gain switching amplifiers. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Air-Curtain Incinerator for Energetic Materials **PAT-APPL-6-039 920/WG/289** **Incinérateur à rideau d'air pour matières énergétiques**

This patent application discusses an air-curtain incinerator for burning energetic materials. Both the volume of air and the angle at which air enters the fire box are remotely controllable. The combustion process is monitored, and the air volume and angle at which air enters the fire box are controlled to minimize the production of air pollutants by the combustion of energetic materials. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Ion Drag Pumped Heat Pipe **PAT-APPL-6-042 165/WG/289** **Conduits de chaleur avec flux d'ions**

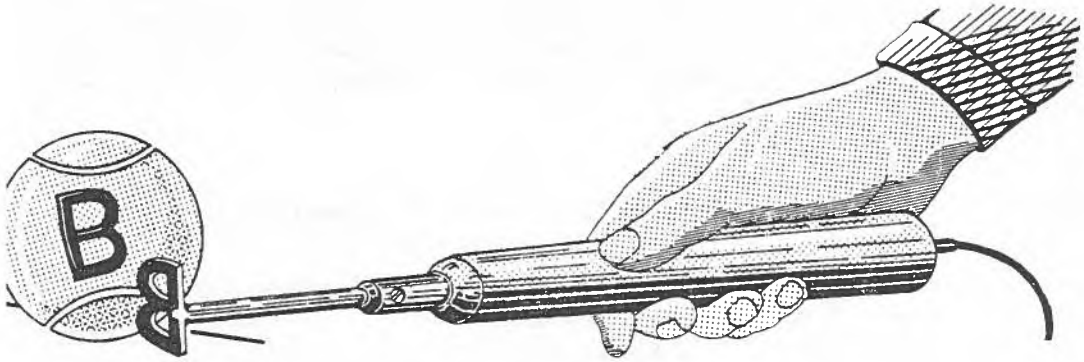
Conventional heat pipe performance can be improved by reducing the dependency upon the capillary pumping limitation. Electrodes mounted either in the working fluid vapor or its condensate produce an ion flow directed axially and in the same flow direction. The ion flow, through collision phenomena, picks-up the surrounding low velocity stream, increases its momentum and generates additional pumping pressure for the condensate. Performance can be improved even when low surface tension working fluids are used. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

Terminated Bis(3,4-Dicyanophenoxy) Alkanes and Polyphthalocyanines Therefrom **PAT-APPL-6-051 568/WG/289** **Alkanes bis (3,4-Dicyanophenoxy) terminés et polyphthalocyaniques qu'ils renferment**

Terminated bis(3,4-dicyanophenoxy) alkanes, wherein the alkylene chain is from 2 to 30 carbon atoms in length, is prepared by the reaction of 4-nitrophthalonitrile with a terminated alkane diol at elevated temperatures. A polyphthalocyanine resin is obtained by heating the dicyanophenoxy alkanes neat or with a salt or metal at a temperature from about 180 C to about 245 C. The polyphthalocyanine resin is useful as a high-temperature structural or composite material which is highly resistant to mechanical stresses and strains. Price: PC U.S. $4.00/MF U.S. $3.00. 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.

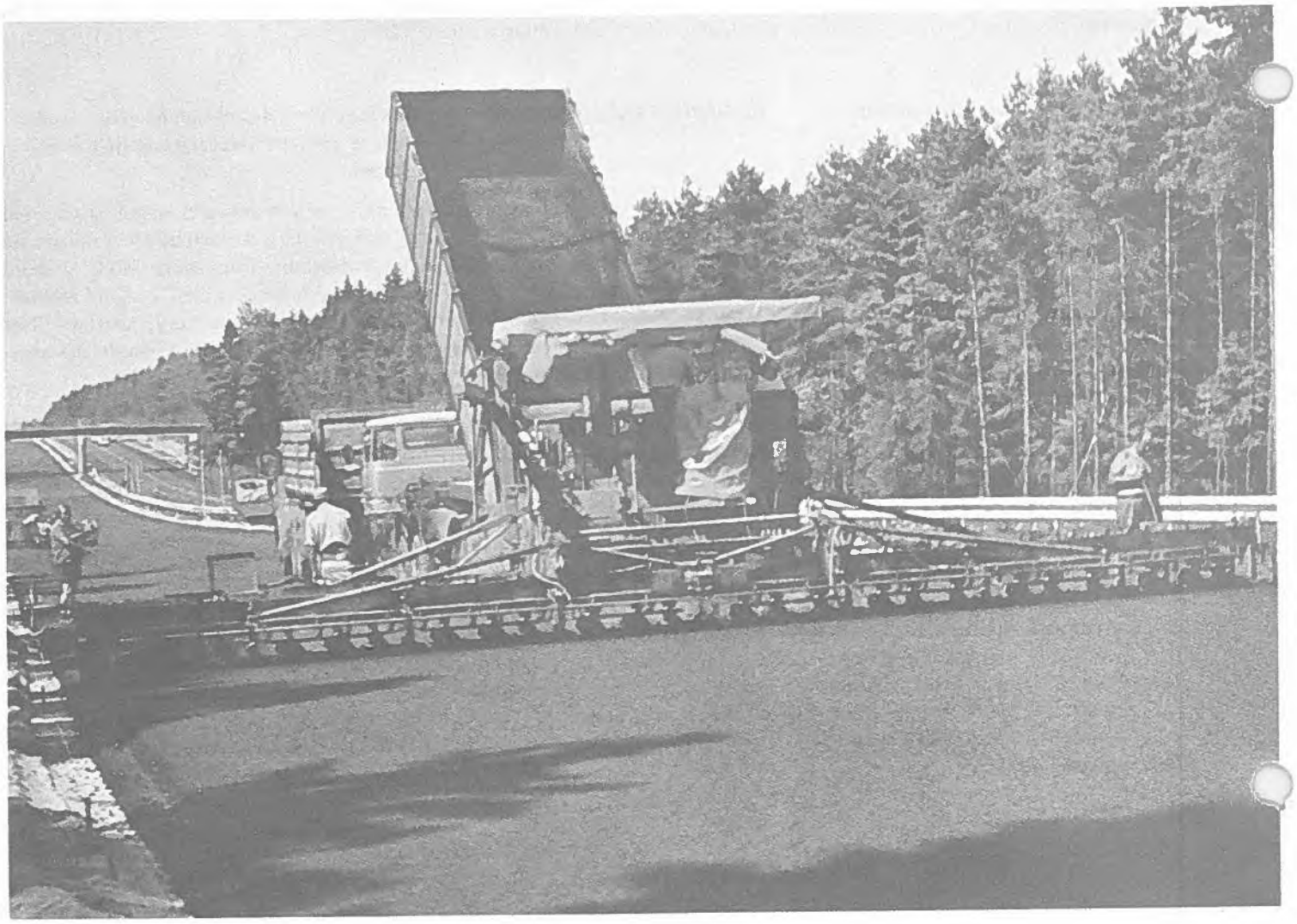
Perfluorinated Aliphatic Phenoxy Bisorthodinitriles and Polyphthalocyanines Therefrom **PAT-APPL-6-051 569/WG/289** **Bisorthodinitriles de phenoxy aliphatiques perfluoré et polyphthalocyanines qu'ils renferment**

The present invention pertains generally to high-temperature resins and their precursors and in particular to perfluorinated aliphatic phenoxy bisorthodinitriles and the cyano-addition resins therefrom. Fiber-reinforced composite materials which comprise carbon or graphite fibers dispersed in a resin are replacing metal in many structural applications because of weight savings, cost effectiveness, better properties and a greater range of properties. The greater range of properties of composites over metals arises because the property variations of polymers are greater than that of alloys. Another advantage of composites over metals is the new design concepts made possible by the improved properties. Price: PC U.S. $4.00/MF U.S. $3.00. Write: U.S. Department of the Navy, Assistant Chief of 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.



(2) Brander or Marker
(2) Fer à pyrogravure

(1) Preservative Wrapper for Wood Poles
(1) Enveloppe protectrice pour les poteaux en bois



(3) Construction Equipment