new products bulletin

bulletin de produits nouveaux

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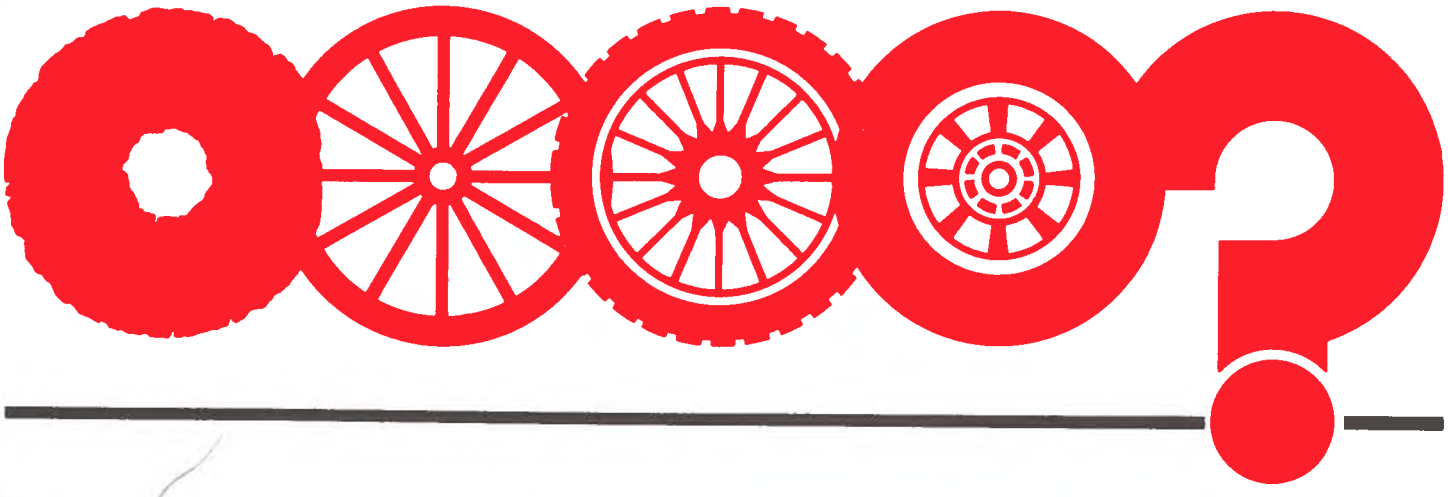


new products bulletin

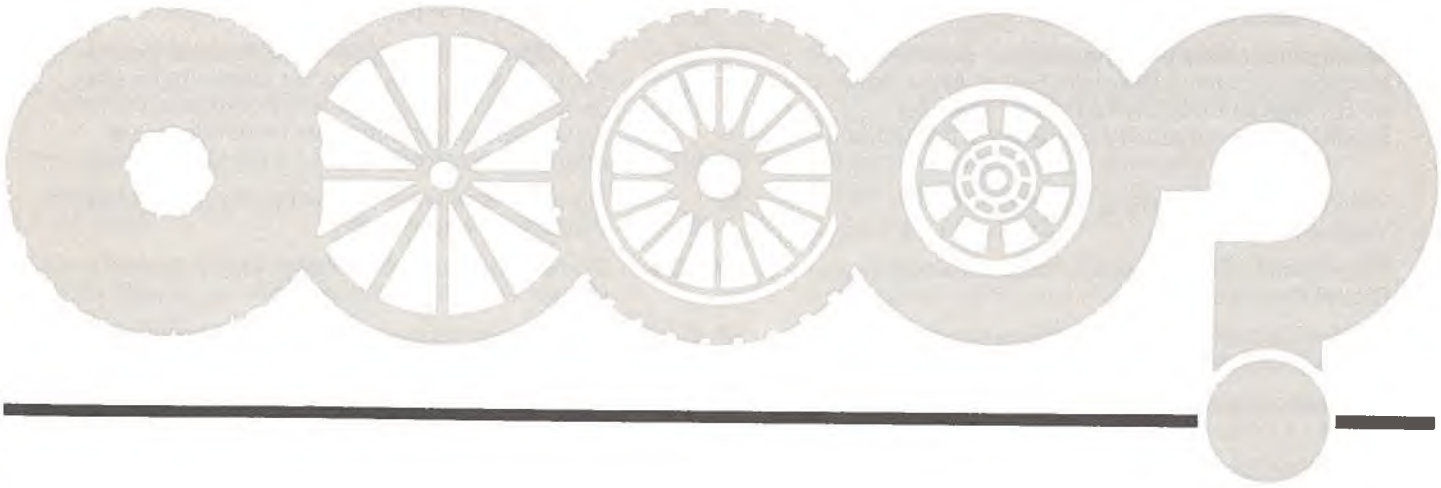
bulletin de produits nouveaux

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

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

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

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



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Selected Licensing or Joint Venture Manufacturing Opportunities

Benzoylation of DEAE-Dextrans/305

These dextrans are benzoylated to produce a lipophilic derivative suitable for the chromatography of tRNA and synthetic protected oligonucleotides. Write: Case 4685, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Attractant for the Sunflower Moth/305

A synthetically produced attractant mixture, field tested and optimized for monitoring this major migratory pest. A method of use is also part of the technology. Write: Case 6913, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Dewatering of Slimes from Phosphate Ores/305

The aqueous slime waste product of a phosphate ore beneficiation process is dewatered by agglomerating the fine solids thereof using a conditioner and a hydrophobic bridging liquid. Write: Case 6924, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Fish Frankfurter/305

Mixtures used in the manufacture of fish frankfurters are described. Flavour and texture can be readily manipulated to suit a variety of tastes. Write: Case 7246, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Lens Design and Analysis Computer Program/305

These optical design and analysis programs are designed for interactive use with a computer and give the lens designer both flexibility and ease of operation. The pro-

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

Benzoylation de DEAE-dextranes/305

Ces dextranes sont benzoylées pour donner un dérivé lipophile convenant à la chromatographie du tRNA et des oligonucléotides protégés synthétiques. Écrire: Cas 4685, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Produit pour attirer la pyrale du tournesol/305

Mélange attractif synthétique, éprouvé et optimisé sur le terrain, pour surveiller ce grand ravageur migrateur. Une méthode d'emploi fait également partie de la technologie. Écrire: Cas 6913, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Essorage des boues de minerais phosphatés/305

Les boues aqueuses qui résultent du traitement d'amélioration des minerais phosphatés sont essorées par agglomération des fines au moyen d'un conditionneur et d'un liquide liant hydrophobe. Écrire: Cas 6924, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Saucisses de poisson/305

On décrit des mélanges utilisés dans la fabrication des saucisses (frankfurters) de poisson. Les goûts et les textures peuvent être modifiés pour répondre à toute une gamme de préférences. Écrire: Cas 7246, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Programme informatique de conception et d'analyse de lentilles/305

Ces programmes de conception et d'analyse optiques sont conçus pour être utilisés interactivement avec un ordinateur et offrent au concepteur de lentilles souplesse et faci-

grams are written in Fortran and are structured to run on a mini-computer (e.g., Digital PDP-11) having a memory of about 28K with overlay capabilities. Write: Case 7387, Canadian Patents and Development Limited, 275 Slater Street, Ottawa, Canada K1A 0R3 and send a copy of your initial correspondence to Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

lité d'utilisation. Les programmes sont écrits en Fortran et sont conçus pour fonctionner sur un mini-ordinateur (par exemple un PDP-11 de Digital) avec mémoire d'environ 28 K et pouvant utiliser des segments de recouvrement. Écrire: Cas 7387, Société canadienne des brevets et d'exploitation limitée, 275, rue Slater, Ottawa (Canada) K1A 0R3 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Micro-Encapsulated Fire Safety Products/305

Italian company offers the manufacturing and marketing rights in Canada to its patented micro-encapsulated fire safety products: 1) capsules or spherical containers (50-200 microns) enveloping chemical substances e.g., Halon gas with an inert membrane which is inert and stable until heat liberates the interior active substance when and where needed and, 2) flame resistant plastic foams (polyurethane, etc.) in which micro-encapsulated chemicals are added to the plastic before the foaming process. The microcapsules are filled with whatever chemical substance is needed; have the appearance of granulated powder and are composed of millions of capsules per cm^3; can be applied in the form of powder, paint, or tapes on or near the surface of objects where a danger of overheating and fire exists. Liberated gas can be detected by gas detectors which trigger an alarm. Also, the bursting of thousands of microcapsules is accompanied by a characteristic and typical sound in the frequency spectrum around 12 kHz and in characteristic intervals of around 22 mill. sec. Special microphones can react to these sounds to the exclusion of all other noises and at a distance of 15 m radius and so trigger an alarm. The system has the advantages of reacting to overheating making intervention possible before a fire develops and damage occurs. Also, the microcapsules can be injected into inaccessible places with microphones installed nearby. The licensor will provide technical assistance. Write: Dr. A. Trugenberger, Capsalarm Italy S.R.L., V. le Monza 270, 20128 Milano, Italy and send a copy of your initial correspondence to Canadian Consulate General, Via Vittor Pisani 19, 20124 Milan, Italy.

Produits de protection contre les incendies microencapsulés/305

Une compagnie italienne offre les droits de fabrication et de commercialisation au Canada de ses produits brevetés de protection contre les incendies, qui se présentent sous la forme de 1) capsules ou contenants sphériques (50-200 microns) enrobant des substances chimiques, le gaz Halon par exemple, dans une membrane inerte qui reste inerte et stable jusqu'à ce que la chaleur libère en temps voulu la substance active qui se trouve à l'intérieur, et de 2) mousses plastiques ininflammables (polyuréthane, etc.) auxquelles on a ajouté avant le moussage des produits chimiques microencapsulés. Les microcapsules sont remplies du produit chimique nécessaire et ont l'apparence d'une poudre granulée; un cm^3 contient des millions de ces capsules, qui peuvent être appliquées sous forme de poudre, de peinture ou de ruban sur la surface ou à proximité des objets aux endroits où il y a risque de surchauffe et de feu. Le gaz libéré peut être détecté par des détecteurs de gaz qui déclenchent l'alarme. De plus, l'éclatement de milliers de capsules est accompagné d'un son caractéristique d'environ 12 kHz de fréquence dont les intervalles caractéristiques sont d'environ 22 millisecondes. Des microphones spéciaux peuvent réagir à ces sons à l'exclusion de tout autre son dans un rayon de 15 m et ainsi déclencher l'alarme. Ce système a l'avantage de réagir à la surchauffe, ce qui permet d'intervenir avant qu'un incendie ne se déclare et que des dommages soient causés. De plus, les microcapsules peuvent être injectées dans les endroits inaccessibles et des microphones peuvent être installés à proximité. La compagnie fournira l'aide technique. Écrire à: Dr. A. Trugenberger, Capsalarm Italy S.R.L., V. le Monza 270, 20128 Milan, Italie et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, Via Vittor Pisani 19, 20124 Milan, Italie.

Washable Synthetic Buckskin/305

Established German licensing consultant offers a Canadian coated fabric manufacturer, technology, the manufacturing know-how and marketing rights on an exclusive negotiable territorial basis for a newly researched process for producing synthetic suede which has been developed by a German firm specializing in synthetic products. It is claimed that this is a quality product which can be manufactured at 50% lower cost than other synthetic suedes, does not use poisonous dimethylformamid and can be used for a wide range of applications, e.g., garments, shoe materials, linings for suitcases, upholstery, etc. The synthetic buckskin can be manufactured using already known and used but modified equipment that includes impregnation/dip coating, coagulation, drying, surface buffing and

Peaux de daim synthétiques et lavables/305

Une entreprise-conseil allemande bien connue spécialisée en propriété industrielle offre à un fabricant canadien de tissus de revêtement la technologie et les droits de fabrication, ainsi que les droits de commercialisation exclusifs à l'intérieur d'un territoire convenu, d'un procédé de fabrication de peaux de daim synthétiques mis au point par une firme allemande spécialisée dans les produits synthétiques. Il s'agit d'un produit de qualité dont le coût de fabrication est de 50% inférieur à celui d'autres suèdes synthétiques, dont la fabrication ne nécessite pas de diméthylformamide toxique et qui possède une vaste gamme d'applications: vêtements, chaussures, garniture intérieure de valises, capitonnage, etc. La fabrication peut s'effectuer avec le matériel déjà connu et utilisé, avec certaines modi-

rolling units for the start and end of the process. The contract offer involves the transfer of the licensor's knowledge regarding formulations, preselection of basic materials, recommendations for machinery and equipment and consultations concerning future developments. Interested parties should indicate initially the equipment currently on hand, the territories in which an exclusive license is sought, and whether it is possible to meet with the licensor in Germany. He will then send his optional know-how agreement, sample cut and definite proposal. During the option period, the prospective licensee can examine the process and know-how without obligation. Write: Project Number 00100/1/5-K. Mr. W.L. Poley, AM Beisenbusch 37, D-4270 Dorsten 1, Germany and send a copy of your initial correspondence to Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

fications; le procédé comporte les étapes suivantes: imprégnation, revêtement par immersion, coagulation, séchage, polissage en surface et laminage au début et à la fin du procédé. L'offre comporte le transfert des détails du procédé concernant les formulations, la présélection des produits de départ, les recommandations relatives à l'outillage et au matériel et des consultations ayant trait aux mises au point futures. Les intéressés doivent mentionner initialement le matériel dont ils disposent actuellement et les territoires pour lesquels ils demandent la licence; dans la mesure du possible, ils doivent rencontrer le donneur de licence en Allemagne. Ce dernier fera alors parvenir un accord optionnel d'exploitation sous licence, un échantillon de peau et une proposition définitive. Durant la période d'option, l'éventuel preneur de licence peut examiner sans obligation le procédé et la technique. Écrire à: Projet numéro 00100/1/5-K. M. W.L. Poley, AM Beisenbusch 37, D-4270 Dorsten 1, Allemagne et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, Immermannstrasse 3, 4 Duesseldorf, Allemagne de l'Ouest.

Residential Solar Energy Heating/305

French company offers a Canadian manufacturer the exclusive manufacturing and North American marketing rights for its line of transparent films and specially designed clips which may be attached to windows during winter to provide additional insulation; a green house fabricated with the same film to trap heat for distribution throughout the house, a fireplace insert to generate additional heating capacity from existing fireplaces; and, vertical axis wind turbines which can be produced at low cost. The French firm will assist financially in the redesign of the products for the North American market and is interested in participating financially with its Canadian partner or partners. Write: Mr. Chatelain, SOREA, Rue de la Croisée, 74000 Annecy, France and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, 35 Avenue Montaigne, 75008 Paris, France.

Chauffage résidentiel à l'énergie solaire/305

Une compagnie française offre à un industriel canadien la licence exclusive de fabrication et de commercialisation en Amérique du Nord et ses films transparents, et des clips conçus spécialement, qui peuvent être fixés aux cadres des fenêtres en hiver pour assurer une isolation supplémentaire; une serre construite avec le même film pour capter la chaleur en vue de la distribuer dans toute l'habitation; une chaudière de cheminée comme chauffage d'appoint à partir d'un foyer déjà existant; et une éolienne à axe vertical qui peut être érigée à bas prix. La compagnie française fournira une aide financière pour la conception des nouveaux produits destinés au marché nord américain, et elle s'intéresse à une participation financière dans la société du licencié. Écrire à: M. Chatelain, SOREA, rue de la Croisée, 74000 Annecy, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Waste Water Flowmeters and Samplers/305

British manufacturer offers the exclusive manufacturing rights in Canada and the North American marketing rights for a new product line of waste water recording equipment. This family of environmental equipment includes (LCD) digital readout flowmeter recorders, automatic liquid samplers and on-line colorimeter or titrimeter auto-analysers. The product line is new and has just been released in the United Kingdom. Interested Canadian manufacturers must have the ability to provide after-sales service to carry out electronic and electro-mechanical repairs. (See illustration page 45.) Write: Mr. Roy Jenkins, Managing Director, Quantum Science Ltd., 27 St. George's Road, Cheltenham, Gloucestershire GL50 3DT, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Débitmètres et échantillonneurs d'eaux usées/305

Un fabricant britannique offre les droits exclusifs de fabrication au Canada et les droits de commercialisation en Amérique du Nord d'une nouvelle gamme d'appareils de mesure des eaux usées. La famille d'appareils comprend des enregistreurs débitmètres à affichage numérique (CL), des échantillonneurs de liquide automatiques et des auto-analyseurs colorimètres ou titrimètres reliés en direct. Il s'agit d'une nouvelle gamme de produits qui viennent d'être mis sur le marché au Royaume-Uni. Les fabricants canadiens intéressés doivent être en mesure d'offrir un service après vente pour assurer les réparations électroniques et électromécaniques. (Voir l'illustration page 45.) Écrire à: M. Roy Jenkins, Managing Director, Quantum Science Ltd., 27 St. George's Road, Cheltenham, Gloucestershire GL50 3DT (Angleterre) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Haut-Commissariat du Canada, 1 Grosvenor Square, Londres W1X 0AB (Angleterre).

Batteries with Replaceable Electrodes/305

British company offers exclusive contract manufacturing arrangement, or licensing under a down payment and royalty agreement with full marketing rights, for the production of batteries having replaceable electrodes. Large area batteries are arranged in a housing in which cells are clamped together. Cell components may be cleaned or replaced whenever necessary. The battery is composed of solid electrolyte cells (insulated at the edges), of manganese dioxide with carbon/zinc electrodes. Batteries may be adapted for use in automobiles or other conventional or electrical vehicles. Write: Dr. G.O. Okikiolu, Okikiolu Scientific & Industrial Co., Flat No. 160, 19 Newport Court, London WC2H 7JS, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Batteries à électrodes remplaçables/305

Une société britannique offre un contrat ou une licence exclusive de fabrication moyennant paiement comptant et redevances avec droits de mise en marché pour la production de batteries à électrodes remplaçables. Les éléments des batteries sont serrés les uns sur les autres dans un logement. Les pièces des éléments peuvent être nettoyées ou remplacées au besoin. La batterie est composée d'éléments à bords isolés, électrolyte solide au dioxyde de manganèse et d'électrodes en carbone et en zinc. Ces batteries peuvent être utilisées dans les automobiles ou autres véhicules conventionnels ou électriques. Écrire à: Dr. G.O. Okikiolu, Okikiolu Scientific & Industrial Co., Flat No. 160, 19 Newport Court, London WC2H 7JS, England et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Haut-commissariat du Canada, 1 Grosvenor Square, Londres W1X 0AB (Angleterre).

Paperboard Packaging Material/305

U.S. Company seeks regional manufacturing licensees in Canada. Following regional market testing, by the licensee, the licensor is prepared to offer technical and manufacturing know-how, machinery, patents, to hold a marketing seminar and to provide sales and advertising literature. "Masterflute" is claimed to be a unique paperboard replacement for plastic, wood and steel products presently used in the packing and shipping of goods. Further applications are contemplated. The product now offered for use in packaging and shipping is a laminated paper (linerboard grade) that is extruded in a variety of geometric shapes that include rigid fluting for use in pallets, etc. Corner shapes available are claimed to provide edge protection, shipping protection, stacking support and internal strength, etc. Write: Fibertech, Inc., International Department, P.O. Box 105, Eagle Road, RD #2, Newtown, Pennsylvania 18940 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Matériau d'emballage cartonné/305

Une compagnie américaine désire fournir des licences de fabrication régionales au Canada. À la suite d'une étude de marché régionale par le détenteur de licence, le concédant offre de fournir le know-how technique et de fabrication, la machinerie et les brevets, de présenter un séminaire sur la commercialisation et de fournir la documentation de vente et de publicité. Selon la compagnie, le "Masterflute" est un produit cartonné pouvant remplacer le plastique, le bois et l'acier actuellement employés pour l'emballage et l'expédition de matériel. D'autres champs d'application sont envisagés. Le produit actuel est en papier laminé de catégorie carton de revêtement, extrudé en diverses formes géométriques, y compris le cannelage rigide de palettisation, etc. On affirme que les coins disponibles protègent le rebord des articles, les protègent à l'expédition, rigidifient et permettent d'empiler les contenants, etc. Écrire à: Fibertech Inc., International Department, P.O. Box 105, Eagle Road, RD #2, Newtown, Pennsylvania 18940 et faire parvenir une copie de votre correspondance initiale au Consulat du Canada, 3 Parkway Bldg., Suite 1310, Philadelphie, Pennsylvanie 19102 (É.-U.).

13 Meter Yacht/305

Australian designer seeks a Canadian licensee to manufacture and market his 13 meter racer/cruiser sailing craft which is in commercial production. He will supply the moulds and all tooling necessary to manufacture the hull, deck and assorted components. The yacht features a shoal draft keel concept which is claimed to handle well in the ocean by 'giving to a seaway and not being thrown over onto its beam the same as a deep keel yacht'. The board is made of fibreglass, has 900 kg of lead laid into it so it will sink and is raised by a line that leads back to a winch on the deck. The rudder blade, also of fibreglass, is raised through a strong rudder case that swings on a vertical transom. The hull shape is the long, firm-bilged narrow tradition of the Adams 10 s and 8 s. Although it is 13 m long, it has the beam displacement of a 10 meter craft; can be handled by two people; is as sea kindly as is possible to draw with a speed potential to make sailing most enjoyable; and it accelerates quickly to puffs but is still easy to manage. See illustration. Write: Mr. Joe Adams, Adams Yacht

Yacht de 13 mètres/305

Un concepteur australien cherche à faire fabriquer sous licence et à mettre en marché au Canada son bateau de course et de croisière qui est en production. Il fournira les moules et tous les outils nécessaires à la fabrication de la coque, du pont et des diverses composantes. Le yacht est équipé d'une quille relevable lui permettant de manoeuvrer sur les hauts-fonds et dont on dit qu'elle se comporte bien en mer en "cédant par mer modérément forte plutôt que de donner de la bande comme un voilier à quille classique". La quille est fabriquée en fibre de verre, lestée de 900 kg de plomb et on la relève à l'aide d'une ligne reliée à un treuil sur le pont. Le safran, également en fibre de verre, est relevé à l'aide d'un robuste chassis de gouvernail pivotant sur une arcasse verticale. La coque de forme allongée est à bouchain ferme et étroit et se situe dans la lignée de celles des Adams 10 s et 8 s. Quoique le yacht soit long de 13 m il a le déplacement d'une embarcation de 10 m; deux personnes suffisent à la manoeuvre, sa tenue à la mer est aussi bonne que possible et il permet des vitesses qui le

Design Pty. Ltd., 6 Pittwater Centre, Cnr. Beaconsfield and Kalinya Streets, Newport, N.S.W. 2106, Australia and send a copy of your initial correspondence to Canadian Consulate General, A.M.P. Centre, 8th Floor, 50 Bridge Street, Sydney, N.S.W. 2000, Australia.

rendent agréable à utiliser; il accélère rapidement dans les bouffées de vent, mais reste facile à diriger. (Voir l'illustration page 45.) Écrire à: M. Joe Adams, Adams Yacht Design Pty. Ltd., 6 Pittwater Centre, Cnr. Beaconsfield and Kalinya Streets, Newport, N.S.W. 2106, Australie et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, A.M.P. Centre, 8th Floor, 50 Bridge Street, Sydney, N.S.W. 2000, Australie.

Combination Gas Grills/305

Swiss inventor with a licensee in Italy, Austria, France, Germany and Switzerland, offers a Canadian company the manufacturing and worldwide marketing rights for its SECO-gas-operated camping grills and SECO-multi-grills which can grill, fry, bake, brown on top and toast. They are portable, use any type of gas and can be used in or out of doors. The camping grill is ideal for patio or kitchen or can be used in the hearth as it has three cook positions. The multi-grill can also roast, prepare 750 servings of meat as well as various other grilled or toasted dishes in 30 minutes; has food and plate warming devices; is easy to clean, improves kitchen services and is time and cost saving. The apparatus was awarded a silver medal at the 9th Annual International Exhibition of Inventions and New Techniques 1980 in Geneva. See illustrations. Write: Mr. S. Cozzio, Römerweg 4, CH-4132 Muttenz, Switzerland and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Kirchenfeldstrasse 88, 3005 Berne, Switzerland.

Gril combiné au gaz/305

Un inventeur suisse avec concessionnaire en Italie, en Autriche, en France, en Allemagne et en Suisse offre à une entreprise canadienne les droits mondiaux de fabrication et de commercialisation de son gril de camping à gaz et de son gril combiné SECO qui peuvent griller, frire, cuire au four, gratiner et rôtir. Il s'agit d'appareils portatifs fonctionnant sur n'importe quelle source de gaz, à l'intérieur ou en plein air. Le gril de camping est idéal pour le patio et la cuisine ou peut être utilisé dans le foyer car il se monte en trois positions différentes. Le gril combiné peut aussi rôtir, et permettre de préparer 750 portions de viande et autres grillades ou plats rôtis en trente minutes. L'appareil possède un compartiment pour tenir les assiettes et les mets au chaud; il est facile à nettoyer, simplifie les préparations culinaires et permet des économies de temps et d'argent. L'inventeur de ce gril a reçu la médaille d'argent au 9e Salon international des inventions et des techniques nouvelles de Genève en 1980. (Voir les illustrations page 46) Écrire à: M. S. Cozzio, Römerweg 4, CH-4132 Muttenz, Suisse, et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, Kirchenfeldstrasse 88, 3005 Berne (Suisse).

Controller for Reducing Power Consumption of Induction Motors/305

British National Research Development Corporation offers an electronic system devised by Dr. P.J. Unsworth in the School of Mathematical and Physical Sciences at the University of Sussex that controls the current flow through an induction motor as its load varies so as to reduce the overall power consumption. An override circuit is provided to deliver full supply current to motors starting up from rest and to prevent stalling by suddenly applied heavy loads. Several motors can be controlled in parallel by a single control system. Write: Dr. R.N. Barraclough, Industrial Chemistry Group, National Research Development Corporation, P.O. Box 236, Kingsgate House, 66/74 Victoria Street, London SW1E 6SL, England and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Dispositif de réduction de l'énergie électrique consommée par les moteurs d'induction/305

La British National Research Development Corporation offre un dispositif électronique de commande d'intensité des moteurs d'induction en fonction des variations de charge. Ce dispositif de réduction de l'énergie consommée a été mis au point par P.J. Unsworth Dr. du School of Mathematical and Physical Sciences de l'université de Sussex. Un circuit d'asservissement permet de fournir l'intensité maximale au démarrage des moteurs de façon à prévenir les arrêts produits par l'application soudaine de charges extrêmes. Un seul dispositif peut commander l'intensité du courant dans plusieurs moteurs reliés en parallèle. Écrire à: Dr. R.N. Barraclough, Industrial Chemistry Group, National Research Development Corporation, P.O. Box 236, Kingsgate House, 66/74 Victoria Street, London SW1E 6S1, England et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Haut-commissariat du Canada, 1 Grosvenor Square, Londres W1X 0AB (Angleterre).

Insulated Construction Panels/305

Canadian inventor offers the licensing rights to his Patent Number 1,080,936 for thermally insulated panels used in the construction of walls, floors, ceilings, partitions and roofs of buildings, ships and other structures and the

Panneaux de construction isolants/305

Un inventeur canadien offre les droits de licence de son brevet n° 1,080,936 relatif à des panneaux isolants utilisés dans la construction de murs, de planchers, de plafonds, de cloisons et de toits de bâtiments, de navires ou autres,

method of assembling such members. The panels comprise 1) a pair of correspondingly corrugated sheets of 18 or 20 gauge galvanized steel, plastic or other material, each sheet having a front surface formed into parallel alternate ridges and grooves and positioned to at least partially overlap each other, the overlapping ridges of one sheet being in contact with and fastened to corresponding ridges of the other sheet to form a tubular cavity between each pair of corresponding grooves; and, 2) premolded slabs of expanded polystyrene as a thermally insulating material disposed within each tubular cavity and firmly embraced between each pair of corresponding grooves. Elongated members which may be formed of wood, high density foamed polyurethane, or other material having appreciable compressive strength are inserted into, and substantially fill, the deep outer groove of one sheet. When the panel-like construction member is used for floors or other non-vertical applications, elongated members absorb the compressive stresses in the upper surface of the floor, while the flat sheet absorbs the tensile stresses in the lower surface. Moreover, desired floor covering can be attached to the exposed upper edges of the elongated members. In walls, inner grooves can be used for installation of plumbing pipes, electrical wiring and electrical outlet and switch boxes. The rigidity of the walls may be increased by fastening steel strips diagonally to inner or outer walls; the inner or outer surfaces may be finished in stucco brick, plaster or drywall without applying the conventional vapour barrier as this has already been effected; the panels may be used in the construction of below ground walls for buildings; and metal-to-metal conductivity between pairs of adjacent ridges is overcome by the insertion of thermally insulating strips. Buildings constructed using these panels have good sound and thermal insulation, are better adapted to withstand earthquake tremours, can be assembled on the spot using relatively unskilled workmen, are well suited for developing countries and are cost and labour saving. (See illustrations page 46.) Write: Mr. Casey P. August, 7 Hauteview Court, Don Mills, Ontario M3A 2Z8 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

et à leur méthode de montage. Les panneaux comprennent: premièrement, deux feuilles ondulées correspondantes en acier galvanisé, de calibre 18 ou 20, en plastique ou autre; chaque feuille a une surface frontale dotée de nervures et de rainures parallèles en alternance, disposées de manière à assurer un chevauchement partiel, les nervures chevauchantes d'une feuille étant mises en contact et fixées à celles de l'autre feuille pour former une cavité tubulaire entre chaque paire de rainures correspondantes. Deuxièmement, des plaques prémoulées de polystyrène expansé formant une isolation thermique, insérées dans chaque cavité tubulaire et fermement enchâssées entre chaque paire de rainures correspondantes. Des lames en bois, en mousse de polyuréthane de haute densité ou en un autre matériau de bonne résistance à la compression sont insérées, de façon à la remplir, dans la profonde rainure d'extrémité. Lorsque le panneau sert de plancher ou dans d'autres applications non verticales, ces lames absorbent les efforts de compression qui s'exercent sur les panneaux, tandis que la feuille plate absorbe les efforts de tension dans la surface inférieure. En outre, le revêtement de plancher voulu peut être posé sur les faces exposées des lames. Dans les murs, les rainures internes peuvent abriter la tuyauterie, les câbles, les prises et les interrupteurs électriques. La rigidité des murs peut être améliorée en fixant des bandes métalliques diagonales sur les faces internes ou externes; les surfaces internes ou externes peuvent être revêtues de stuc, de briques, de plâtre ou de plaques de plâtre sans pose du coupe-vapeur classique, puisque cette question est déjà résolue; les panneaux peuvent servir à construire les murs de sous-sols et la conductivité entre les paires de nervures métalliques adjacentes est neutralisée par l'insertion de bandes d'isolation thermique. Les bâtiments construits à l'aide de ces panneaux ont une bonne isolation acoustique et thermique, résistent mieux aux secousses sismiques, peuvent être assemblés à pied d'oeuvre sans main-d'oeuvre spécialisée, sont bien adaptés aux besoins du tiers-monde et permettent une économie d'argent et de main-d'oeuvre. (Voir les illustrations page 46.) Écrire à: M. Casey P. August, 7 Hauteview Court, Don Mills Ontario M3A 2Z8 et faire parvenir une copie de votre correspondance initiale à la Section des possibilités de licences (34/3), Centre des entreprises, ministère de l'Industrie et du Commerce, Ottawa (Ontario) K1A 0H5.

Vibratory Power Drive/305

American inventor seeks a Canadian company to manufacture and market under his U.S. patents 3,532,174 and 3,610,347 an electric device for the control of electric power distribution. The drive is a hydraulically operated telescopic arrangement coupled by a member equivalent to a hard spring through which high frequency fracture energy is applied to a work surface through a rock drill, wedge, chisel, spade; etc. A relatively soft second spring acts as a vibration isolator and the system operates under self sustained resonance whereby energy is not imparted to the rock, dirt pile, etc., but is stored in the spring mass combination to be released during subsequent strokes. Only the energy transferred to the work has to be replenished by the power source: energy losses and wear in the apparatus are minimized, a feature further enhanced by the absence of metal to metal contact of internal components. An important ramification of the device is its capability to

Commande de production de vibrations/305

En vertu des brevets américains 3,532,174 et 3,610,347, un inventeur américain offre à une compagnie canadienne les droits de fabrication et de mise en marché d'une commande électrique de distribution de courant électrique. Cette commande se compose d'une série de pièces télescopiques actionnées par liquide et accouplées à un élément semblable à un ressort rigide; l'énergie de fracture à haute fréquence s'exerce sur cet élément, puis parvient à un marteau pneumatique, à un coin, à un ciseau, à une bêche, etc., puis finalement à la surface à briser. Un second ressort relativement flexible sert d'isolateur de vibrations; l'ensemble fonctionne par résonance auto-entretenue grâce à laquelle l'énergie n'atteint pas le roc, la couche de poussière, etc. mais est plutôt emmagasinée dans l'ensemble de la masse des ressorts, puis retransmise lors des coups suivants. La source d'énergie n'a qu'à compenser l'énergie transmise à la surface à briser. Grâce

simultaneously vibrate the tool axially and to rotate it without an external motor. Self-sustained vibration is effected via an oscillator, either fluidic or hydromechanical, feeding the pressurized working fluid into simple pressure chambers. The invention provides for two kinds of hard springs: one in the shape of a metal sleeve capable of handling the extreme loading and heating conditions associated with deep penetration oil drilling; the other of the laminated bearing type which has the unique feature of functioning as a bearing, seal and spring without sliding friction, all in one, and which will be applicable to most other operations (rotadrills, pavement breakers, hand tools). Advantages: Potential simplification and economy of rotary drilling; besides drilling, the power drive will be applicable to construction pillar drivers, to bulk material handling machines, and to heavy earth moving equipment such as trenchers, diggers, compactors, back hoe-loaders, scrapers, plows, etc., in which stiction between material and the work implement can be substantially reduced through vibration; application in small size to light hand tools such as dental drills and forceps for tooth extraction under minimal shock to surrounding tissue. Write: Mr. N.D. Diamantides, 2517 Fourteenth Street, Cuyahoga Falls, Ohio, 44220 and send a copy of your initial correspondence to Canadian Consulate, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113, U.S.A.

à ce facteur et au fait qu'il n'y a pas de contact métal-métal des pièces internes, les pertes d'énergie et l'usure de la machine sont donc minimales. Important avantage conséquent de cette disposition: la machine peut vibrer axialement et tourner sans l'aide d'un moteur externe. Les vibrations auto-entretenues proviennent d'un oscillateur à liquide ou hydromécanique; le liquide sous pression aboutit à des chambres à pression de construction simple. La machine peut recevoir l'un ou l'autre type de ressort rigide: l'un ayant la forme d'un manchon d'acier capable de supporter des charges et un échauffement extrêmes résultant d'une pénétration profonde (plate-formes de forage), et l'autre du type palier laminé, qui peut servir de palier, de joint étanche et de ressort sans qu'il y ait frottement par glissement; ce dernier ressort peut servir pour la plupart des autres opérations, comme celles effectuées à l'aide de perceuses rotatives, de brise-béton et d'outils manuels. Les avantages sont les suivants: le perçage rotatif est simplifié et ses coûts sont réduits; la commande peut s'adapter non seulement au perçage, mais aussi à l'entraînement des piliers de construction, aux machines de manutention du matériel en vrac et aux gros engins de terrassement, comme les trancheuses, les excavatrices, les compacteurs, les pépines, les décapeuses, les charrues, etc., sur lesquels le frottement entre l'outil et le matériel traité est grandement réduit grâce aux vibrations. Des outils manuels légers comme les fraises de dentiste et les daviers peuvent en être munies, réduisant au maximum les chocs imposés aux tissus environnants lors de l'extraction des dents. Écrire à: Mr. N. D. Diamantides, 2517 Fourteenth Street, Cuyahoga Falls, Ohio 44220 et faire parvenir une copie de votre correspondance initiale au Consulat du Canada, Illuminating Building, 55 Public Square, Cleveland, Ohio 44113 (É.-U.).

Highway Safety Device/305

American inventor offers a Canadian company the manufacturing and North American marketing rights for his patented emergency flashing flag/light which permits a driver to remain in his car while warning other drivers of his presence and requirement for assistance. Designed to fit under the driver's seat, a flag and staff with a red light is fitted into a base and the base clipped onto the window. An adapter is plugged into the cigarette lighter to initiate the flashing light. Useful for the handicapped, women or elderly people who may remain in their locked car, and for drivers and passengers who do not wish to stand outside their car day or night or in cold or inclement weather to flag someone down during an emergency. See illustration. Write: Mr. Donald C. O'Neill, 64 Austin Street, Postsmouth, N.H. 03801 and send a copy of your initial correspondence to Canadian Consulate General, 500 Boylston Street, Boston, Massachusetts, 02116, U.S.A.

Dispositif de sécurité routière/305

Un inventeur américain offre à une entreprise canadienne les droits de fabrication et de commercialisation pour l'Amérique du Nord de son dispositif de sécurité breveté composé d'un drapeau surmonté d'un feu clignotant, permettant à un conducteur de demeurer à l'intérieur de son véhicule tout en avertissant les autres conducteurs de sa présence et de son besoin d'aide. Conçu pour être rangé sous le siège, l'ensemble comporte un drapeau avec hampe surmontée d'un feu rouge à la base duquel une pince permet de fixer le tout à la vitre du véhicule. Le feu clignotant se branche sur l'allume-cigarettes. Le dispositif est particulièrement utile aux personnes handicapées, aux femmes et aux personnes âgées qui désirent demeurer à l'intérieur d'un véhicule fermé à clé, ainsi qu'à tous ceux qui ne veulent pas s'exposer à l'extérieur, tant de jour et de nuit que par mauvais temps, pour réclamer de l'aide lors d'une urgence. (Voir l'illustration page 46.) Écrire à: M. Donald C. O'Neill, 64 Austin Street, Portsmouth, N.H. 03801 et faire parvenir une copie de votre correspondance initiale au Consulat général du Canada, 500 Boylston Street, Boston, Massachusetts 02116, (É.-U.).

Canadian Patents Available for Licensing or Sale Issued April 1981

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

Low pH Preparation of Cationic Starches and Flours/305

A novel process is disclosed for preparing cationic starches and flours by reacting starch-containing materials in a dry state with a halohydrin at a pH of 9 or below without the necessity for subsequent alkali neutralization or washing. The resultant products have cationic properties remarkably superior to prior art cationic starches over a broad range of acid and alkaline pH's. In the manufacture of paper, they serve as excellent pigment retention and dry-strength improvement agents. **Patent 1,098,655**. Write: The Secretary, U.S. Department of Commerce, NTIS, 425 Thirteenth Street, N.W., Washington, D.C. 20004 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Machine for Removing Water-Soluble Ink from Overhead Projector Writing-Film Rolls/305

The use of an overhead projector equipped with a roll of transparent writing-film has replaced the blackboard in many school classrooms. As with blackboards, writing can be erased from a film roll (providing the writing has been done with overhead projector pens that have water-soluble ink), and the roll can be reused. Most teachers clean their writing-film rolls by slowly winding the film across the overhead projector, stopping frequently to wipe the writing from the film with water-dampened paper towels. However, writing-film rolls are over fifteen meters (fifty feet) in length, so wiping a roll by hand tends to be a time consuming and messy job. Usually fifteen to twenty minutes are required and by the time one is finished, one's hands and shirt cuffs are stained with ink. A busy teacher is inclined, naturally, to avoid the job and use a brand new roll. Hence, schools expend around twenty dollars apiece on dozens of new rolls while dozens of inky but otherwise usable rolls are being stacked away on shelves. The invention is a machine that can wash water-soluble ink off a writing-film roll, and dry the film in much less time and with much less mess than is possible when wiping by hand. With this machine, a person cranks the film from one spool to another as jets of water wash the ink off the film, and rubber blades wipe the film dry. The machine can transform an inky roll into a dry, clean roll in under three minutes, without getting ink on one's hands or clothes. **Patent 1,098,801**. Write: Robert K. Lee, 1312 Parsnip Crescent, Prince George, British Columbia V2M 4C4 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Pharmaceutical Product Containing Mineral Salts, Pectin and Tannin/305

The invention deals with a new pharmaceutical product with blood-arresting and inflammation-retarding effects, suitable for treatments of wounds and inflammations of the skin and mucous membranes. The purpose of the invention is to present a substance which quickly achieve outstanding compatibility and excellent adherence upon application. The invention rests upon the specifically discovered composition of ingredients. It shows a comparatively low pH value and a comparatively high osmotic pressure. The remedy contains compatible mineral salts, tannin, glycerine and pectin as active ingredients and has been tested very successfully in the clinic. **Patent 1,098,828**. Write: Dobrivoje Tomic, 499 Castelfield Avenue, Toronto, Ontario M5M 1L7 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Liste des brevets canadiens disponibles pour octroi de licence ou vente délivrés en avril 1981

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

Préparation d'amidons et de farines cationiques de bas pH/305

Appareil permettant d'enlever l'encre soluble dans l'eau des rouleaux de films transparents de rétroprojecteurs/305

Produit pharmaceutique contenant des sels minéraux, de la pectine et du tanin/305

Arrangement for Compensating for Detrimental Magnetic Influence Between Two or More Rows of Transverse Electrolytic Pots or Cells for Producing Aluminum, by Electrolytic Reduction/305

Dispositif pour compenser l'influence magnétique nuisible entre deux ou plusieurs rangées de creusets ou cubilots électrolytiques transversaux pour la production de l'aluminium, par réduction électrolytique/305

An arrangement is provided for compensating for detrimental magnetic influence between two or more rows of transverse electrolytic pots or cells for producing aluminum, by electrolytic reduction in a molten bath, in which most of the current conducted from the rear side of a pot in the pot row to the succeeding pot in the row, is carried by two or more conductors underneath the pot. Another and smaller proportion of the current conducted to the succeeding pot in the row is conducted in its entirety around that short side of the pot which faces the magnetically dominating adjacent pot row. Preferably, this smaller proportion of the current amounts to a maximum of 20 per cent of the total electrolysis current. **Patent 1,098,864**. Write: Ärdal og Sunndal Verk a.s., Sorkedalsveien 6, Oslo 3, Norway and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, Postuttak, Oslo 1, Norway.

Hermetically Self Sealing Gaskets for High Vacuum Fastener/305

Joint autoscellants hermétiques pour dispositifs d'attache à dépression/305

A vacuum-actuated holding device is provided for securing an article having a relatively flat surface against a support having a relatively flat surface and which is capable of maintaining adhesion between the flat surfaces of the article and support for a prolonged period of time by means of an external vacuum source having a needly valve pin. The device has a rubber gasket positionable between the flat surfaces of the article and support in abutting relationship therewith. The gasket has an inner periphery defining a vacuum retaining area and a hermetically self-sealing, radially extending slit formed therethrough in which the needle valve pin of the external vacuum source may be inserted to communicate with the vacuum retaining area and to effect evacuation thereof. The slit is hermetically sealed upon withdrawal of the pin so as to maintain the established vacuum. **Patent 1,098,885**. Write: Karman D. Albert, 74-16 58th Avenue, Elmhurst, N.Y. 11373 and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, N.Y. 10020, U.S.A.

High Speed, Wide Dynamic Range Analog-to-Digital Conversion/305

Conversion analogique-numérique à grande vitesse et à grande dynamique/305

A wide dynamic range, wide bandwidth, analog-to-digital conversion system and method. A plurality of overlapped analog-to-digital converters are utilized in conjunction with scaling amplifiers to provide a plurality of output ranges. Means for selecting the set of output bits which provides a magnitude representation of the input signal are provided along with means for outputting a digital representation of the appropriate range. **Patent 1,099,019**. Write: The Secretary, U.S. Department of Commerce, NTIS, 425 Thirteenth Street, N.W., Washington, D.C. 20004 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Joining Corners and Intersections in a Log Building Construction/305

Assemblage des angles et des croisements pour constructions en bois rond/305

The log-type building construction in accordance with the invention includes a pair of walls which are angularly disposed relative to one another, each wall including a plurality of logs positioned one on top of the other with the walls being in interlocking relation with one another in a vertically disposed interlocked region. The logs of one wall are in interleaved or interlaced relationship with the logs of the other wall along the interlock region. In accordance with the invention the logs of each wall have an obliquely disposed mortise therein adjacent the interlock region and locking means disposed in the mortises to secure the logs of said one wall to the logs of the other wall. **Patent 1,099,072**. Write: Laird W. Schilbe, R.R. 3, Bayfield, Ontario N0M 1G0 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Stereophotographic Process for Producing Works of Sculpture/305

Improvements in a stereophotographic process for producing works of sculpture by arranging a number of cameras and a number of projectors, each fitted with a screen having a number of parallel stripes, in a circle around an object so as to face the latter, taking pictures of the object simultaneously with the cameras while the striped screens are being projected thereon by the projectors, replacing the projectors and cameras by an increased number of projectors arranged in similar positions to face instead a mass of material to be modeled which is placed at the center, projecting the pictures as well as the screens fitted in the projectors on the mass of material, and then modeling the material until the stripes of the same sources on the screens and pictures projected are in coincidence on the material surface. The improved process is characterized in that each pair of adjacent projectors are fitted with pictures, one for each, or a picture for one and a screen for the other to match, when projected, on the material surface, either picture or screen being positive and the other being negative, only such matchable projectors are lighted to project stripes s'' ' which combine the stripes s' and s'' of the positives and negatives in coincidence and also fringelike projections of unusual brightness and darkness appearing on both sides of the stripes s'' ' as indications of unmatched stripes, and then the material is modeled by eliminating the portions represented by the projections until an original model of uniform lightness is reached. **Patent 1,099,098**. Write: Isao Morioka, 3-23 Ookayama, 2-chome, Meguro-ku, Tokyo, Japan and send a copy of your initial correspondence to Commercial Division, Embassy of Canada, 3-38 Akasaka 7 — Chome, Minato-ku, Tokyo 107, Japan.

Procédé stéréographique pour production de sculptures/305

Procédé de production de microbulles aptes à assurer le traitement d'une suspension/305

Procédé de production de microbulles aptes à assurer le traitement d'une suspension par flottation dans une cuve par la fermeture brusque d'un clapet disposé à l'extrémité amont d'une conduite reliée à ladite cuve, et dans laquelle circule la suspension à traiter, convenablement enrichie en gaz dissous. **Brevet 1,099,227**. Écrire à: Alsthom-Atlantique, 38, avenue Kléber, 75784 Paris, Cédex 16, France et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 35, avenue Montaigne, 75008 Paris, France.

Production of Micro-Bubbles for Treatment of a Suspension/305

Antibacterial Textile Finishes Utilizing Zirconyl Acetate Complexes of Inorganic Peroxides/305

Bacteriostatic, water-insoluble complexes of zirconyl acetate with inorganic peroxides are disclosed. Peroxides operative in forming these complexes are hydrogen peroxide, alkali metal perborates and alkali metal peroxydiphosphates. The insoluble complexes of the invention are used to form deposits on the surfaces of cellulosic textiles. The textile finishes so produced inhibit the growth and spreading or odor- and infection-producing gram-negative and gram-positive bacteria on the treated textiles. The antibacterial activity imparted to the textiles is durable to repeated laundering. **Patent 1,099,276**. Write: Mr. George Kudravetz, Product Manager, U.S. Department of Commerce, National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Finis antibactériens de textiles par complexes d'acétate de zirconium et de péroxydes inorganiques/305

Photographic Process for the Production of Pictures of Increased Contrast/305

In order to increase the contrast of a picture such as an X-ray picture over a selected range of densities, a negative transparency of the original picture of selected density value at one end of the selected range and a positive transparency of the original picture at the other end of the selected range are superimposed to form a transparency sandwich and the image produced by illuminating such a transparency sandwich is photographed or displayed. A number of selected density ranges may be superimposed on a single display by making a respective transparency sandwich for each range in a different colour and superimposing such transparency sandwiches. **Patent 1,099,560**. Write: STB Strahlentechnische Bilddiagnostik, Heinz Fleck, Haidkamp 95, 2080 Pinneberg, West Germany and send a copy of your initial correspondence to the Canadian Consulate General, Immermannstrasse 3, 4 Duesseldorf, West Germany.

Procédé photographique pour produire des images à contraste accru/305

Finger Nail Treating Device/305

A device for use in treating finger nails with a liquid, such as a nail polish remover. The device comprises a flat-bottomed, cylindrical container having an open top normally closed by a cover. A cylindrical sponge is press-fitted

Dispositif de manucure/305

into the container to be frictionally held in place. A finger hole is provided in the sponge. Treatment liquid is poured into the container to be absorbed by the sponge to a level where it can act on the end of a finger inserted into the hole. The finger fits snugly in the hole and is rotated or oscillated therein to assist the treatment. **Patent 1,099,608.** Write: Révélations Antoine Ltée, 6472 Des Roseraies Boulevard, Ville d'Anjou, Québec H1M 2S2 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Tripod Head Camera Mount/305

Tête de trépied pour appareil photographique/305

The tripod head camera mount of this invention permits manual adjustments in one or more of three planes through the provision of high friction contact at the pivot points about which the manual adjustments are made. This permits movement from one stable position to subsequent stable positions without the need for a slackening off and a tightening up for each new position. Adjustments may be made in a horizontal plane, in a transverse vertical plane and in a longitudinal vertical plane. **Patent 1,099,687.** Write: Barry D. Waters, 5440 Fowler Road, Victoria, B.C. V8Y 1Y3 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce Ottawa, Ontario K1A 0H5.

Framed Net with Ball Receiving Receptacle for Use with Golf-Like Paddle Game/305

Jeu inspiré du golf/305

The present invention provides a game apparatus comprising, in combination, a) a playing surface; and b) a plurality of ring nets disposed at predetermined spaced locations on said playing surface, said ring nets comprising an upright net having an aperture therein large enough to pass a ball and a ball-receiving means behind said aperture. **Patent 1,099,760.** Write: Gaston E. Fauteux; Philippe Lauzon, 204 Thompson Boulevard, St. Laurent, Quebec H4N 1B9 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Input Apparatus for Dynamic Signature Verification Systems/305

Dispositif d'entrée pour systèmes de vérification dynamique des signatures/305

The disclosure relates to signature verification input apparatus comprising a writing instrument and platen containing piezoelectric transducers which generate signals in response to writing pressures. **Patent 1,099,804.** Write: Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Upholstered Spring Seat/305

Siège rembourré à ressorts/305

Seats are provided for a wide range of small chairs, which are economically made comfortable throughout by the utilization of no more than two non-intersecting resilient strands positioned spanning an opening in the seat frame so as to pass beneath the heavily loaded bony protuberances in the buttocks, known as ischial tuberosities, and sustain part of the weight of the torso whilst permitting the thighs of the user to descent into and be partially supported by the seat frame. The average distance between the two tuberosities being 13.2 cm., the supporting points on the strand or strands are spaced apart by about that average distance. **Patent 1,100,025.** Write: Kay Springs Inc., 175 Eileen Way, Syosset, New York 11791 and send a copy of your initial correspondence to Canadian Consulate General, 1251 Avenue of the Americas, New York City, New York 10020, U.S.A.

Submerged Settler for Suspended Solids/305

Bassin de sédimentation pour solides en suspension/305

In a water treatment plant which extracts water from a large open main body of water, the improvement of; a settling enclosure submerged in said main body of water and having a settling chamber therein which is isolated from the main body of water by an enclosure wall, a substantially quiescent body of water located within said settling chamber, input passage means communicating between said settling chamber and said main body of water for admitting water to said settling chamber, output passage means communicating between said settling chamber and said water treatment plant for conveying water from said quiescent body of water to said water treatment plant, said quiescent body of water having a volume which is substantially greater than the instantaneous requirements of said water treatment plant whereby water entering said settling chamber is held in a substantially

quiescent state within said settling chamber for a period of time sufficient to ensure that the turbidity of water drawn from the quiescent body by way of said output conduit is substantially constant and unaffected by turbidity conditions in the main body of water. **Patent 1,100,056**. Write: Edward S. Posgate, 211 Line Kiln Road, Ancaster, Ontario L9G 3A9 and send a copy of your initial correspondence to the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Process for Preparing Lubricating Oil from Used Waste Lubricating Oil/305

A re-refining process is described by which high-quality finished lubricating oils are prepared from used waste lubricating and crankcase oils. The used oils are stripped of water and low-boiling contaminants by vacuum distillation and then dissolved in a solvent of 1-butanol, 2-propanol and methylethyl ketone, which precipitates a sludge containing most of the solid and liquid contaminants, unspent additives, and oxidation products present in the used oil. After separating the purified oil-solvent mixture from the sludge and recovering the solvent for recycling, the purified oil is preferably fractional vacuum-distilled, forming lubricating oil distillate fractions which are then decolorized and deodorized to prepare blending stocks. The blending stocks are blended to obtain a lubricating oil base of appropriate viscosity before being mixed with an appropriate additive package to form the finished lubricating oil product. Advantages of the process include recovery of a higher percentage of waste oil, the formation of a by-product sludge that is essentially neutral and thus more environmentally compatible than are the sludges resulting from most other recovery processes, and reduced destruction of the diaromatic and polyaromatic polar materials which impart natural lubricity and oxidation resistance to the oils. **Patent 1,100,078**. Write: Mr. James E. Denny, Assistant General Counsel for Patents, Office of the General Counsel, U.S. Department of Energy, Washington, D.C. 20545 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Méthode de préparation d'huile lubrifiante à partir d'huile de lubrification épuisée/305

United States Government Patent Applications Available For U.S. and Possibly Foreign Licensing

Paper or microfiche copies of the following U.S. patent applications may be purchased from NTIS for $5.00 (PC) and $3.50 (MF) unless otherwise indicated, using Visa, Master Charge, American Express, NTIS deposit accounts, cheque or money order in U.S. funds. Requests for information to license the corresponding Canadian patent rights should be addressed to the U.S. departments indicated with a copy of your initial correspondence forwarded to the Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102. If you are advised that a corresponding Canadian patent has not been sought, you may wish to enquire through Mrs. D. Johnson of the Licensing Opportunities Section (34/3), Business Centre, Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5, telephone Area Code 613-995-5771, concerning guidance for any further action that may be taken.

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

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

Method and Apparatus for Reading Map Coordinates/305

Filed October 14, 1980, by the Department of Agriculture. The patent application describes a method of reading coordinates on a map. This comprises placing a transparent overlay on the map, which overlay has a plurality of parallel lines and radial lines which intersect and divide each parallel line into equal segments; and using the segments to read a map coordinate to an increment smaller than the smallest readable increment on the map. **PAT-APPL-6-196 707**. Write: NTIS.

Méthode et transparent de lecture des coordonnées sur les cartes/305

Method and Apparatus for Automatic Egg Mass Counting/305

Méthode et appareil pour le comptage automatique des masses d'oeufs/305

Filed October 29, 1980, by the Department of Agriculture. The invention is in the area of determining the presence of biological masses on foliage. In particular, the invention is directed to a method and apparatus for automatic counting of insect egg masses on foliage samples. **PAT-APPL-6-202 032**. Write: NTIS.

Starch Adduct Encasement of Particulate Elastomers/305

Encapsulation de particules d'élastomères dans une matrice constituée d'un produit d'addition de l'amidon/305

Filed October 30, 1980, by the Department of Agriculture. Powered and crumb rubber are prepared by dispersing in a starch alkoxide paste appropriately sized particles of wet curd from the precipitation of a latex emulsion, and then insolubilizing the paste by treatment with select bivalent cations. The result is a starch adduct encasing the particulate elastomer, thereby preventing agglomeration and congealing upon storage. **PAT-APPL-6-202 395**. Write: NTIS.

Encapsulation by Entrapment Within Starch Adduct Matrix/305

Encapsulation dans une matrice constituée d'un produit d'addition de l'amidon/305

Filed October 30, 1980, by the Department of Agriculture. Water-insoluble chemical biological agents to be encapsulated are dispersed in an aqueous paste of a starch-containing material alkoxide. Subsequent addition of selected water-soluble alkali earth metal cations insolubilize the paste, thereby entrapping the agents in a protective matrix. Encapsulation of biologically active compositions provides a shield against hostile environments, improves safety in handling, and slows the release of such compounds to the surrounding medium. Highly volatile liquids are protected against losses by evaporation. Encapsulation also provides protection against decomposition from exposure to ultraviolet light. **PAT-APPL-6-202 396**. Write: NTIS.

Flow-Closing Bleed Valve Assembly/305

Soupape de purge coupant l'écoulement d'air/305

Filed July 23, 1980, by the Department of the Air Force. This application discloses an adjustable, spring-loaded poppet valve assembly for use in combination with a turbofan engine having deteriorated clearances in the compressor section which result in difficulty in starting the engine. The assembly initially is biased in the open position; and, it permits starting of the engine by bleeding overboard (through an engine duct outlet) some of the fore-to-aft compressor airflow, until the engine starts. The assembly remains in the open position until the pressure of the air that it is bleeding is sufficient to overcome the force of the biasing spring; and, then the assembly is forced to the closed position by the pressure of that air. The assembly stays in the closed position, until the engine is shut-down (i.e. turned off). The pressure of the compressor air then falls, the compressor air flow eventually ends, and the compressed spring expands, with the assembly thereby returning to the open position. **PAT-APPL-6-171 611**. Write: NTIS.

Taggants with Explosive Induced Magnetic Susceptibility/305

Repère à sensibilité magnétique après explosion/305

Filed August 27, 1980, by the Department of the Air Force. This application discloses a color-coded taggant for the post-detonation identification of explosive material. Retrieval of the taggant after detonation of an explosive is facilitated by the addition of nickel formate to the taggant. The additive renders the taggant magnetically susceptible only after detonation. This eliminates the possibility of the unauthorized removal of the taggant by a magnet before detonation but retains the advantages of facile retrieval by means of a magnet subsequent to detonation. **PAT-APPL-6-181 924**. Write: NTIS.

Multi-Tone Jammer/305

Brouilleur multitonalité/305

Filed August 24, 1980, by the Department of the Air Force. This application discloses a waveform capable of jamming some or all of the channels of a multiple channel receiver is developed by a multi-tone jammer that uses a digital counter and a digital/analog converter to generate a ramp voltage for a voltage controlled oscillator (VCO). The output of the VCO is modulated by a pin diode attenuator. The attenuator is controlled by a pattern generator synchro-

nized with the digital counter to blank the retrace and any portion of the sweep to provide a partial band tone jamming spectrum. The digital counter is driven by a MHz reference signal generator and the sweep repetition rate is greater than the circuit bandwidth. **PAT-APPL-6-181 940.** Write: NTIS.

Perfluorinated Epoxides/305

Epoxydes perfluorés/305

Filed August 29, 1980, by the Department of the Air Force. This invention concerns itself with the preparation of four novel perfluorinated epoxides. **PAT-APPL-6-182 563.** Write: NTIS.

Perfluorocarbon Ethers/305

Ethers perfluorocarboxyliques/305

Filed August 29, 1980, by the Department of the Air Force. This invention concerns itself with the preparation of two novel perfluorocarbocyclic ethers. **PAT-APPL-6-182 564.** Write: NTIS.

A Netted Search Radar System/305

Système radar de recherche en réseau/305

Filed September 9, 1980, by the Department of the Air Force. A netted, search radar system to defeat monopulse anti-radiation missiles utilizing a plurality of search radars scanning asynchronously with differently coded signals. The coded pulse trains from each radar precisely timed and frequency locked to one another in order that all radar units simultaneously emit pulses on or at substantially the same r.f. carrier frequency. **PAT-APPL-6-185 469.** Write: NTIS.

P + N Gallium Phosphide Photodiodes/305

Photodiodes P + N au phosphure de gallium/305

Filed September 9, 1980, by the Department of the Air Force. This application discloses a photodiode detector apparatus having a gallium phosphide ion implantation junction thereon to provide high quantum efficiency at wavelengths equal to or less than 0.5 micron incident wavelength while utilizing a shallow junction. **PAT-APPL-6-185 471.** Write: NTIS.

Automatic Bandwidth Control System/305

Système automatique de commande de largeur de bande/305

Filed September 9, 1980, by the Department of the Air Force. This application discloses an automatic bandwidth control system for an adaptive optics servo utilizing and adjustable amplitude low frequency sinusoidal dither signal to optimize the servo bandwidth for a particular target scenario thereby minimizing bandwidth-related degradation. **PAT-APPL-6-185 472.** Write: NTIS.

Improved Film Cooled Annular Combustor/305

Chambre de combustion annulaire à refroidissement pelliculaire améliorée/305

Filed September 9, 1980, by the Department of the Air Force. This application discloses a structural improvement to, and a method of improving each cooling nugget of an annular combustor of a gas turbofan engine, so that the lip portion of each nugget does not buckle. The structural improvement comprises a plurality of passageways in the defining shell of the combustor, and an unsupported downstream extension of the original length of the prior art lip portion of each nugget to a location which is farther downstream than the most rearwardly (i.e., downstream) positioned passageway of the plurality. The method includes the steps of forming the plurality of passageways, and of extending the lip portion of each nugget downstream, and unsupported, to a position beyond the most rearwardly (i.e., downstream) passageway. The results of the use of the structural improvement, and of the practising of the steps of the improvement method, include: the promotion of film cooling of the cooling nuggets and of the shell of the combustor; the prevention of buckling of the lip portion of each nugget; and the increase of the useable life span of the combustor. **PAT-APPL-6-185 473.** Write: NTIS.

Fuel Valve/305

Soupape à carburant/305

Filed September 16, 1980, by the Department of the Air Force. This application discloses a valve assembly for controlling the flow of a liquid fuel. The assembly includes a spring-biased movable valve member made of tungsten

carbide, a captured sleeve member also made of tungsten carbide, and a readily accessible filtering screen member disposed in the fuel duct inlet of the assembly. In assembled form, the housing comprises two releasably connected constituent portions which integrate to form a one-piece unit. The structure of the unit, and the extreme hardness of the tungsten carbide material of which the valve member and the sleeve member are made, prevent corrosion and/or galling (such as by sand particles) and/or other normally-expected wear of the valve assembly, and thereby result in continued accuracy and reliability of the valve assembly, while maintaining simplicity and compactness of it. A plurality of these valve assemblies can be effectively and economically used in combination with, and intermediate of, the fuel manifold and the fuel spraybars of the afterburner of a gas turbine engine, to keep the manifold full when not operating and to effectuate equal distribution of a given flow of fuel to all spraybars throughout the fuel flow range. **PAT-APPL-6-187 646**. Write: NTIS.

Power Circuit Utilizing Self Excited Hall Effect Switch Means/305

Circuit d'alimentation utilisant un interrupteur auto-excité à effet Hall/305

Filed September 27, 1980, by the Department of the Air Force. This application discloses a power circuit utilizing a switch comprised of Hall-effect-active resistive elements for interrupting a current flow in an inductive energy storage system. Interruption of the flow of current causes a high-voltage pulse which drives the current flow into a circuit leg which is parallel to the interrupting elements. The Hall effect switch is controlled by means of an exciter coil that is connected in parallel with the Hall-effect-active resistive elements to provide self excited operation. **PAT-APPL-6-189 237**. Write: NTIS.

Scan Corrected Vidicon Camera Apparatus/305

Système de caméra Vidicon à correction de balayage/305

Filed October 23, 1980, by the Department of the Air Force. A scan corrected vidicon camera apparatus utilizing a spatial reference filter with an array of slits that is fitted directly on the faceplate of a vidicon tube. The spatial reference filter is used in conjunction with perturbations that are injected into the vertical and horizontal sweeps. The resultant video waveform is correlated in a microprocessor unit to linearize the respective sweeps. **PAT-APPL-6-200 226**. Write: NTIS.

Data Bus System Utilizing FM Communication Techniques/305

Système de bus de données utilisant les techniques de communications FM/305

Filed October 24, 1980, by the Department of the Air Force. A data bus system utilizing a linear FM transmitter and receiver to provide a multiple data channel bus system. A transmission line is utilized to connect the transmitter to the receiver. The modulation index of the FM circuit is modified by varying either the frequency deviation or the modulation frequency. **PAT-APPL-6-200 283**. Write: NTIS.

Frequency Shift Keying Data Bus Communication System/305

Système de bus de données à modulation par déplacement de fréquence/305

Filed October 29, 1980, by the Department of the Air Force. A data bus system utilizing a frequency shift keying transmitter and receiver to a multiple channel data bus communication system. A transmission line is utilized to connect the transmitter unit to the receiver unit. The frequency shift keying transmitter unit utilizes binary logic levels which drive a voltage controlled oscillator to generate different frequencies for different logic levels and a zero crossover which is used to avoid generation of harmonics during transmission. **PAT-APPL-6-201 583**. Write: NTIS.

Modified Pulse Width Modulation Data Bus Communication System/305

Système modifié de bus de données à modulation d'impulsions en durée/305

Filed October 29, 1980, by the Department of the Air Force. A data bus system utilizing a modified pulsewidth modulation transmitter and receiver to transfer data signal therebetween. A hardened transmission line is utilized to connect the transmitter unit to the receiver unit. A zero crossover switch unit in the transmitter is controlled by a clock signal to switch a reference sinewave at the input data rate. **PAT-APPL-6-201 854**. Write: NTIS.

Acousto-Optic Time Integrating Correlator/305

Corrélateur opto-acoustique à intégration par rapport au temps/305

Filed May 12, 1980, by the Department of the Army. A highly efficient time integrating acousto-optic correlator determines the time difference of arrival of the signals being correlated as well as the center frequency and bandwidth of the signals. A surface acoustic wave delay line is provided with two counter-propagating surface acoustic waves with wavefronts tilted with respect to each other. Two laser beams are directed across the propagating waves with an angle of 4 times the Bragg angle between them so that one beam interacts primarily with one propagating wave while the other beam interacts primarily with the other wave. The modulated optical beams are directed to a time-integrating photodetector means which provides a signal output corresponding to the correlation function. **PAT-APPL-6-148 653**. Write: NTIS.

Erosion Lithography to Abrade a Pattern Onto a Substrate/305

Lithographie par érosion sur substrat/305

Price per copy from NTIS: PC U.S. $6.50/MF U.S. $3.50, filed May 12, 1980, by the Department of the Army. A variety of technologies have been applied in the development of a bonded grid cathode. Erosion lithography is used for making the fine-detail grid structure, combining air erosion and lithographic techniques. To obtain openings of the order of 0.001 inch (one mil) or smaller, a nozzle with a high aspect ratio exit opening is used, and the cathode grid structure is scanned. A photo resist in which the grid pattern is developed is used over the molybdenum or tungsten grid film. The metal film is removed from the grid openings by chemical etching. The photo resist over the metal grid is used as a composite mask for removing the BN insulation in the openings by erosion with A12O3 powder from the special nozzle on the air blast gun. **PAT-APPL-6-149 205**. Write: NTIS.

Device to De-Spin Objects with Very High Spin/305

Dispositif de contregyration d'objets tournant à très grande vitesse/305

Filed May 27, 1980, by the Department of the Army. A method and apparatus are disclosed which are particularly adapted to quickly de-spin a rapidly rotating object or projectile. Weights are released from the object in a series of distinct stages, thus discarding enough momentum to reduce the spin of the object to a desired minimal value. The weights are released simultaneously by a single release means thereby assuring perfectly symmetrical and synchronized release of the respective weights. The result is a pure de-spin of the object without imparting other motion to the object. **PAT-APPL-6-153 461**. Write: NTIS.

Optical Fuze with Improved Range Function/305

Amorce optique à réponse améliorée aux courtes distances/305

Filed May 27, 1980, by the Department of the Army. An optical proximity fuze is disclosed which has an improved response at close range with respect to a target. The fuze comprises a source of infrared radiation or visible light which is projected toward the target, and a receiver or detector which responds to radiation reflected from the target, an opaque field stop in front of the detector comprises multiple apertures for permitting only selected portions of the reflected radiation to reach the detector. The use of multiple apertures, rather than a singular large aperture, improves short range response of the fuze without increasing sensitivity of the fuze to aerosols. **PAT-APPL-6-153 462**. Write: NTIS.

Multilayer Via Resistors/305

Multicouche à résistances intégrées/305

Filed June 2, 1980, by the Department of the Army. A substrate has two or more conductive layers deposited thereon, each adjacent layer pair separated by a dielectric layer. Apertures are formed in the dielectric layer and are filled with resistor paste. In this way, a resistive path may be formed between the conductive layers. This concept of fabricating resistors are particularly useful in the inclusion of pull-up, pull-down and other non-critical resistors in the circuitry contained within a thick film construction. **PAT-APPL-6-155 713**. Write: NTIS.

Power Supply Conditioner for Fluidic Systems/305

Régulateur de débit de fluide/305

Filed June 4, 1980, by the Department of the Army. A flow conditioner for a fluidic system is disclosed which comprises first and second elements spaced from one another and defining a flow region therebetween. The elements have differing respective coefficients of thermal expansion whereby the dimensions of the flow region will change upon a change in temperature due to the differing reactions of the respective elements to the temperature change. The flow conditioner is incorporated into a fluidic system generally at the location where fluid is fed into the system. **PAT-APPL-6-156 458**. Write: NTIS.

Soft Recovery Method for Gundired Shells/305

Méthode de récupération intégrale des balles d'une arme à feu/305

Filed June 6, 1980, by the Department of the Army. An apparatus and method for soft recovery of a projectile is disclosed. An element, at least a portion of which is deformable, is placed in the path of the projectile, whereby the projectile becomes embedded in the element upon impact therewith. Gravitational or aerodynamic forces are applied to the combined projectile and deformable element to decelerate the same thereby making recovery possible. **PAT-APPL-6-157 145**. Write: NTIS.

Microwave Controlled Field Effect Switching Device/305

Dispositif de commutation de micro-ondes commandé par effet de champ/305

Filed June 9, 1980, by the Department of the Army. A microwave switching device replacing PIN diodes and operating at higher speeds requires reduced switching current. A field effect controlled device is utilized with no ground plane, for elimination of source-ground and drain-ground capacitance. Massive source and drain structures reduce terminal inductance. A low resistance active region provides dynamic switching capability improving over prior art devices in operating frequencies and speeds. **PAT-APPL-6-157 758**. Write: NTIS.

Multi-Caliber Projectile Soft Recovery System/305

Système de récupération intégrale des projectiles de divers calibres/305

Filed June 11, 1980, by the Department of the Army. An apparatus and method for soft recovery of a projectile is disclosed. A deformable element is place in the path of the projectile, whereby the projectile becomes embedded in the element impact therewith. Gravitational or mechanical forces are applied to the combined projectile and deformable element to decelerate the same thereby making recovery possible. **PAT-APPL-6-158 556**. Write: NTIS.

Flueric Density and Force Sensor/305

Indicateur hydraulique de densité et de force/305

Filed June 23, 1980, by the Department of the Army. This invention relates to density of a sample or its concentration are sensed by a fluidic device having a nozzle with a divider for emitting the sample and a reference fluid as layers of a single laminar jet. The deflection of the jet in a fixed force field is sensed as an indicator of density or concentration. The same device can measure acceleration transverse to the nozzle axis or attitude in a fixed force field as a function of sensed jet deflection. The sensitivity of the acceleration and attitude sensor is a function of the density of the two selected fluids used in the layered laminar jet. **PAT-APPL-6-161 793**. Write: NTIS.

Apparatus for Eliminating Power Source Rise Time Effects in a Time Fuze System/305

Dispositif pour éliminer les effets du temps de montée de la source d'alimentation d'un système de fusée à retard/305

Filed July 15, 1980, by the Department of the Army. This invention relates to a timing system for providing a fuze function time for firing a fuze which is independent of power source rise time. A non-volatile counter is programmed with a count indicative of the function time, and is read out starting at missile take-off to fire the fuze upon completion of read out of the count. Inhibit circuitry is provided for automatically reducing the stored count during the setting operation and for subsequently inhibiting the reading out of the counter by a time corresponding to the reduction in the stored count. This time is selected to be greater than the largest expectable rise time of the fluidic generator power source, but no longer than is necessary. **PAT-APPL-6-169 004**. Write: NTIS.

Dual Frequency Range Antenna System/305

Antenne réseau à deux gammes de fréquences/305

Filed September 19, 1980, by the Department of the Army. Disclosed is an antenna system designed to operate in two frequency ranges simultaneously, namely S-band (1660 to 1700MHz) and X-band (8500 to 9600MHz). The system comprises two separate antennas which are conically scanned and share a common parabolic reflector within a radome. The S-band antenna is adapted for passive angle tracking and reception of radiosonde data by means of a balun fed dipole feed system which includes an offset hemispherical reflector which is rotated by a scan motor to provide conical scanning. The X-band antenna comprises an active feed system which includes a stationary feedhorn and a

tapered dielectric lens which is coupled to the S-band hemispherical reflector and is rotated therewith about an axis through the vertex of the parabolic reflector. The tapered lens tilts the constant phase front of the X-band radiation pattern thereby producing a displaced phase center near the focus of the antenna to implement its respective conical scanning operation. **PAT-APPL-6-188 798**. Write: NTIS.

D.C.-A.C. Inverter Protection/305

Système de protection pour onduleurs/305

Filed October 1, 1980, by the Department of the Army. The A.C. synthesizer is a unit developing several hundred watts at 60 Hz by pulse-width modulation techniques, with an 8 KHz sawtooth oscillator modulating a 60 Hz reference. Several failure modes common to electronic equipment caused the output stages designed for a pulse rate of 8 KHz to experience inputs from 60 Hz to as low as D.C., which inputs destroy expensive transistors. The addition of a retriggerable 'one-shot' (monostable multivibrator) to inhibit the pulse width modulator output if not retriggered each 8 KHz cycle eliminates the catastrophic effect of most failure modes, allowing the output stage to reject low frequency pulses. **PAT-APPL-6-193 332**. Write: NTIS.

Method of Fabricating Acceleration Resistant Crystal Resonators and Acceleration Resistant Crystal Resonators so Formed/305

Méthode de fabrication de résonateurs à cristal résistant à l'accélération et résonateurs fabriqués selon cette méthode/305

Filed October 14, 1980, by the Department of the Army. An acceleration-resistant crystal resonator is made from a single quartz plate that is optically twinned into a left-handed (LH) quartz portion and a right-handed (RH) quartz portion. According to the method, the optically twinned single quartz plate is formed into a resonator plate wherein the effective thickness of the (LH) portion is substantially the same as the effective thickness of the (RH) portion. The resonator plate is then mounted and bonded to the support structure of a crystal resonator enclosure. A pair of electrodes is then deposited onto the (LH) portion and a pair of electrodes deposited onto the (RH) portion. The thickness of the two pairs of electrodes is then adjusted so that the resonant frequency of the resonator on the (LH) portion is substantially the same as the resonant frequency of the resonator on the (RH) portion. The pairs of electrodes are then interconnected to each other and to an oscillator circuit so that in-phase vibration of the two portions is assured. The enclosure is then hermetically sealed. **PAT-APPL-6-196 508**. Write: NTIS.

High Power Gyrotron (OSC) or Gyrotron Type Amplifier Using Light Weight Focusing for Millimeter Wave Tubes/305

Gyrotron grande puissance ou amplificateur de type gyrotron de mise au point du faisceau électronique dans les guides d'ondes millimétriques/305

Filed October 20, 1980, by the Department of the Army. An improved gyrotron oscillator or gyrotron amplifier has a plurality of strong-field magnetic arrays disposed along the length of the device. Each magnetic array comprises n electromagnets, the windings of which are arranged so that the polarity of the electromagnets alternates around each array. Further, the polarity of the corresponding magnets in successive arrays alternative axially along the device. The strong-field magnetic arrays focus and reshape the electron beam within the gyrotron, thereby increasing the efficiency of the device. Permanent magnets may be used in lieu of electromagnets but offer less control. **PAT-APPL-6-198 395**. Write: NTIS.

High Impedance Fast Voltage Probe/305

Sonde de tension à action rapide à forte impédance/305

Filed October 20, 1980, by the Department of the Army. A fast risetime, high voltage, high impedance voltage probe utilizes a parallel R-C divider with damping and compensation circuitry to allow measurement of voltage from DC to picosecond pulses. A unique feature of this probe is its construction. The performance of this device is made possible by utilizing microwave chip components on a planar circuit used as the center conductor of a coaxial transmission line. **PAT-APPL-6-198 557**. Write: NTIS.

Contactless Resistivity Measurement Method/305

Méthode de mesure de la résistivité sans contact avec les semiconducteurs/305

Price per copy from NTIS: PC U.S. $6.50/MF U.S. $3.50, filed October 27, 1980, by the Department of the Army. This invention relates to methods and apparatus for contactless, non-destructive resistivity measurements on semi-

conducting crystalline material, for example, gallium arsenide. The material to be tested is formed into a disc which is supported within an air gap. The holder for the disc is such as to support the disc only about its outer edges; thus, the disc is free to vibrate piezoelectrically. A measuring circuit connected to the electrodes, which establish the air gap, applies an alternating electric field in the air gap which causes the crystal to vibrate. By adjusting the frequency of excitation, resonance may be established in the crystal and by comparing the current drawn through the air gap with graphs previously established for material of the type under test, the resistivity of the disc can be determined. **PAT-APPL-6-200 627**. Write: NTIS.

Ultra-Black Coating Due to Surface Morphology/305

Revêtement ultranoir provenant de la morphologie superficielle/305

Filed June 4, 1980, by the Department of Commerce. The invention provides a method of producing an ultra-black surface coating, having an extremely high light absorption capacity, on a substrate, such as a metal, ceramic, glass, or plastic, the blackness being associated with a unique surface morphology consisting of a dense array of microscopic pores etched into the surface, as well as the resulting coated substrate. **PAT-APPL-6-156 442**. Write: NTIS.

Use of 2,5-Dimethyl-2,5-Hexane Diamine as a Curing Agent for Epoxy Resins/305

Utilisation de la 2,5-diméthyl-2,5-hexanediamine comme agent de durcissement des résines époxydes/305

Filed January 24, 1980, by the Department of Energy. Primary diamines are prepared for use as a curing agent for epoxy resins. These curing agents can be used to form epoxy resin mixtures useful in filament winding and preimpregnated fiber molding and in formulating film adhesives, powder coatings and molding powders. The epoxy mixtures form for such uses a room temperature non-reacting, intermediate stable state which has a latent cross-linking capability. **PAT-APPL-6-005 940**. Write: DOE.

Photoresist Laminate/305

Résine photosensible laminée/305

Filed October 1, 1979, by the Department of Energy. The disclosure relates to a laminated negative dry-film photoresist for the production of thick, as well as thin, patterns with vertical sidewalls. Uniform depthwise exposure in a photoresist layer is effected by the use of an ultraviolet filtering top layer. **PAT-APPL-6-080 727**. Write: DOE.

High Temperature Lubricating Process/305

Procédé de lubrification de pièces à hautes températures/305

Filed October 4, 1979, by the Department of Energy. It has been difficult to provide adequate lubrication for load bearing, engine components when such engines are operating in excess of about 475 exp 0 C. The present invention is a process for providing a solid lubricant on a load bearing, solid surface, such as in an engine being operated at temperatures in excess of about 475 exp 0 C. The process comprises contacting and maintaining the following steps: a gas phase is provided which includes at least one component reactable in a temperature dependent reaction to form a solid lubricant; the gas phase is contacted with the load bearing surface; the load bearing surface is maintained at a temperature which causes reaction of the gas phase component and the formation of the solid lubricant; and the solid lubricant is formed directly on the load bearing surface. The method is particularly suitable for use with ceramic engines. **PAT-APPL-6-081 987**. Write: DOE.

Low Temperature Ion Source for Calutrons/305

Source d'ions à basse température pour calutrons/305

Filed October 10, 1979, by the Department of Energy. A new ion source assembly for calutrons has been provided for the efficient separation of elements having high vapor pressures. The strategic location of cooling pads and improved insulation permits operation of the source at lower temperatures. A vapor valve constructed of graphite and located in a constantly increasing temperature gradient provides reliable control of the vapor flow from the charge bottle to the arc chamber. A pronounced saving in calutron operating time and equipment maintenance has been achieved with the use of the present ion source. **PAT-APPL-6-083 507**. Write: DOE.

Improved Method of Preparing Composite Superconducting Wire/305

Méthode améliorée de fabrication d'un fil supra-conducteur composite/305

Filed October 17, 1979, by the Department of Energy. An improved method of preparing composite multifilament superconducting wire of Nb sub 3 Sn in a copper matrix eliminates the necessity of coating the drawn wire with tin.

A generalized cylindrical billet of an alloy of copper containing at least 15 weight percent niobium, present in the copper as discrete, randomly distributed and oriented dendritic-shaped particles, is provided with at least one longitudinal opening which is filled with tin to form a composite drawing rod. The drawing rod is then drawn to form a ductile composite multifilament wire containing a filament of tin. The ductile wire containing the tin can then be wound into magnet coils or other devices before heating to diffuse the tin through the wire to react with the niobium forming Nb sub 3 Sn. Also described is an improved method for making large billets of the copper-niobium alloy by consumable-arc casting. **PAT-APPL-6-085 653**. Write: DOE.

Sintered Metal Electrodes and Method of Making Same/305

Électrodes en métal fritté et méthode de fabrication de ces électrodes/305

Filed October 25, 1979, by the Department of Energy. A method and electrode produced thereby are provided comprising a thin plate of sintered iron powder having a density of between 20 and 25% of the theoretical density of iron with an internal current collector preferable of hairlike strands of nickel or other suitable metal. The internal current collector provides discharge capacities of greater than 0.3 Ah per gram of total electrode weight. Electrodes without any external current collectors or only with a single strip are disclosed. **PAT-APPL-6-088 301**. Write: DOE.

Method of Making a High-Capacity Sintered Iron Electrode and Product/305

Méthode de fabrication d'une électrode en fer fritté à capacité élevée et application à des batteries/305

Filed October 30, 1979, by the Department of Energy. An iron-active electrode is provided for secondary cells or batteries with spaced apart perforated and expanded nickel sheets the interstices of which are filled with a powder prepared by reducing a ferric oxide powder in hydrogen at about 700 exp 0 C to an agglomerated iron powder. The iron powder is separated and surface-oxidized by treatment with deionized water followed by drying at temperatures from ambient to about 100 exp 0 C. A pore former such as urea having a minimum particle size of about 83 microns is added and the mixture die pressed with the current collectors and sintered in hydrogen between about 700 exp 0 C and about 900 exp 0 C to produce electrodes having a density between about 15% and about 35% of the theoretical density of iron. **PAT-APPL-6-089 345**. Write: DOE.

Method and Means of Passive Detection of Leaks in Buried Pipes/305

Méthode et moyens de détection passive des fuites dans les tuyauteries enfouies/305

Filed October 30, 1979, by the Department of Energy. A method and means for passive detection of a leak in a buried pipe containing fluid under pressure includes a plurality of acoustic detectors that are placed in contact with the pipe. Noise produced by the leak is detected by the detectors, and the detected signals are correlated to locate the leak. In one embodiment of the invention two detectors are placed at different locations to locate a leak between them. In an alternate embodiment two detectors of different waves are placed at substantially the same location to determine the distance of the leak from the location. **PAT-APPL-6-089 346**. Write: DOE.

Recovery of Aluminum and Other Metal Values from Fly Ash/305

Récupération de l'aluminium et d'autres métaux dans les cendres volantes/305

Filed November 1, 1979, by the Department of Energy. The invention relates to a method for improving the acid leachability of aluminum and other metal alues found in fly ash which comprises sintering the fly ash, prior to acid leaching, with a calcium sulfate-containing composition at a temperature at which the calcium sulfate is retained in said composition during sintering and for a time sufficient to quantitatively convert the aluminum in said fly ash into an acid-leachable form. **PAT-APPL-6-090 175**. Write: DOE.

Enzymatic Method for Improving the Injectability of Polysaccharides/305

Méthode enzymatique pour améliorer les propriétés d'injection des polysaccharides/305

Filed November 1, 1979, by the Department of Energy. A method for enhancing the ability of polysaccharides in aqueous solution to flow through a porous medium comprises contacting the polysaccharides with an endoenzyme capable of hydrolyzing at least one of the linkages of the sugar units of the polysaccharides and maintaining the polysaccharides in contact with the enzyme under hydrolysis conditions for a time sufficient to decrease the tendency of the polysaccharides to plug the porous medium yet insufficient to decrease the viscosity of the aqueous polysaccharides by more than 25%. The partially hydrolyzed polysaccharides are useful as thickening agents for flooding water used to recover oil from oil-containing subterranean formations. **PAT-APPL-6-090 176**. Write: DOE.

Rf Feedback Free Electron Laser/305

Laser à électrons libres à réaction RF/305

Filed November 2, 1979, by the Department of Energy. A free electron laser system and electron beam system for a free electron laser are provided which use rf feedback to enhance efficiency. Rf energy is extracted from an electron beam by decelerating cavities and returned to accelerating cavities using rf returns such as rf waveguides, rf feedthroughs, etc. This rf energy is added to rf klystron energy to lower the required input energy and thereby enhance energy efficiency of the system. **PAT-APPL-6-090 846**. Write: DOE.

Production of the Ammonium Salt of 3,5-Dinitro-1,2,4-Triazole by Solvent Extraction/305

Préparation du sel ammoniacal du 3,5-dinitro-1,2,-4-triazole par extraction par solvent/305

Filed November 7, 1979, by the Department of Energy. The ammonium salt of 3,5-dinitro-1,2,4-triazole has utility as a chemical explosive. In accordance with the present invention, it may readily be produced by solvent extraction using high-molecular weight, water-insoluble amines, followed by amination with anhydrous ammonia gas. The aqueous reaction mixture produced in the synthesis of the parent compound, 3,5-dinitro-1,2,4-triazole, is quite suitable — and indeed is preferred — for use as the feed material in the process of the invention. **PAT-APPL-6-092 155**. Write: DOE.

Alkyl Phospholipid Antihypertensive Agent/305

Agent antihypertention: alkylphospholipide/305

Filed November 7, 1979, by the Department of Energy. The composition of this invention is 1-0-alkyl-2-acetoyl-sn-glycero-3-phosphocholine. The alkyl is a saturated alkyl having 9 to 21 carbon atoms, or salts or hydrates of the composition. Preferably the alkyl has 13 to 19 carbon atoms and most preferably 15 carbon atoms. The composition of this invention is useful for reducing hypertension in warm-blooded animals, including humans, when administered either orally or by injection or innoculation, e.g., intravenous injection. The composition can be prepared from naturally occurring lipids or synthetically from commercially available materials. The ionic structural formula is given. **PAT-APPL-6-092 156**. Write: DOE.

Method for Etching Thin Films of Niobium and Niobium-Containing Compounds for Preparing Superconductive Circuits/305

Méthode d'attaque de couches minces de niobium et de composés de niobium pour la préparation de circuits à supraconducteurs/305

Filed November 23, 1979, by the Department of Energy. An improved method of preparing thin film superconducting electrical circuits of niobium or niobium compounds is provided in which a thin film of the niobium or niobium compound is applied to a nonconductive substrate and covered with a layer of photosensitive material. The sensitive material is in turn covered with a circuit pattern exposed and developed to form a mask of the circuit in photoresistive material on the surface of the film. The unmasked excess niobium film is removed by contacting the substrate with an aqueous etching solution of nitric acid, sulfuric acid, and hydrogen fluoride, which will rapidly etch the niobium compound without undercutting the photoresist. A modification of the etching solution will permit thin films to be lifted from the substrate without further etching. **PAT-APPL-6-096 859**. Write: DOE.

Method Utilizing Laser-Processing for the Growth of Epitaxial p-N Junctions/305

Méthode de formation par laser de jonctions PN épitaxiales/305

Filed November 23, 1979, by the Department of Energy. This invention is a new method for the formation of epitaxial p-n junctions in silicon. The method is relatively simple, rapid, and reliable. It produces doped epitaxial layers which are of well-controlled thickness and whose electrical properties are satisfactory. An illustrative form of the method comprises codepositing a selected dopant and amorphous silicon on a crystalline silicon substrate to form a doped layer of amorphous silicon thereon. This layer then is irradiated with at least one laser pulse to generate a melt front which moves through the layer, into the silicon body to a depth effecting melting of virginal silicon, and back to the surface of the layer. The method may be conducted with dopants (e.g., boron and phosphorus) whose distribution coefficients approximate unity. **PAT-APPL-6-096 871**. Write: DOE.

Slurry Atomizer for a Coal-Feeder and Dryer Used to Provide Coal at Gasifier Pressure/305

Atomiseur de boues destiné à une conduite d'amenée et à un sécheur à charbon, qui fourniront du charbon à la pression de gazéification/305

Filed December 5, 1979, by the Deparment of Energy. The present invention is directed to a coal-water slurry atomizer for use in a high-pressure dryer employed in a pumping system utilized to feed coal into a pressurized coal gasifier. The slurry atomizer is provided with a venturi, constant area slurry injection conduit, and a plurality of tangentially disposed steam injection ports. Superheated steam is injected into the atomizer through these ports to provide a vortical flow of the steam, which, in turn, shears slurry emerging from the slurry injection conduit. The droplets of slurry are rapidly dispersed in the dryer through the venturi where the water is vaporized from the slurry by the steam prior to deleterious heating of the coal. **PAT-APPL-6-100 663.** Write: DOE.

Apparatus for Installing Condition-Sensing Means in Subterranean Earth Formations/305

Appareil de pose de capteurs dans des formations souterraines/305

Filed December 7, 1979, by the Department of Energy. The present invention is directed to an apparatus for installing strain gages or other sensors-transducers in wellbores penetrating subterranean earth formations. The subject apparatus comprises an assembly which is lowered into the wellbore, secured in place, and then actuated to sequentially clean the wellbore or casing surface at a selected location with suitable solvents, etchants and neutralizers, grind the surface to a relatively smooth finish, apply an adhesive to the surface, and attach the strain gages or the like to the adhesive-bearing surface. After installing the condition-sensing gages to casing or earth formation the assembly is withdrawn from the wellbore leaving the sensing gages securely attached to the casing or the subterranean earth formation. **PAT-APPL-6-101 370.** Write: DOE.

Catalac Free Electron Laser/305

Laser à électrons libres avec catalac/305

Price per copy from NTIS: PC U.S. $6.50/MF U.S. $3.50, filed December 12, 1979, by the Department of Energy. A catalac free electron laser using a rf linac (catalac) which acts as a catalyst to accelerate an electron beam in an initial pass through the catalac and decelerate the electron beam during a second pass through the catalac is described. During the second pass through the catalac, energy is extracted from the electron beam and transformed to energy of the accelerating fields of the catalac to increase efficiency of the device. Various embodiments disclose the use of post linacs to add electron beam energy extracted by the wiggler and the use of supplementary catalacs to extract energy at various energy peaks produced by the free electron laser wiggler to further enhance efficiency of the catalac free electron laser. The catalac free electron laser can be used in conjunction with a simple resonator, a ring resonator, or as an amplifier in conjunction with a master oscillator laser. **PAT-APPL-6-102 804.** Write: DOE.

Method of Altering the Effective Bulk Density of Solid Material and the Resulting Product/305

Méthode pour modifier la masse volumique efficace d'un matériau rigide et le produit/305

Filed December 21, 1979, by the Department of Energy. A method of adjustably tailoring the effective bulk density of a solid material in which a mixture comprising the solid material, a film-forming polymer and a volatile solvent are sprayed into a drying chamber such that the solvent evaporates and the polymer dries into hollow shells having the solid material captured within the shell walls is described. Shell density may be varied as a function of solid/polymer concentration, droplet size and drying temperature. An exemple of the application of this technique is for tailoring a working fluid for MHD generators made of cesium carbonate suspensions in toluene. **PAT-APPL-6-106 132.** Write: DOE.

Submergible Barge Retrievable Storage and Permanent Disposal System for Radioactive Waste/305

Barge immersible de stockage temporaire et d'élimination définitive des déchets radioactifs/305

Filed December 21, 1979, by the Department of Energy. A submergible barge and process for submerging and storing radioactive waste material along a seabed are described. A submergible barge receives individual packages of radwaste within segregated cells. The cells are formed integrally within the barge, preferably surrounded by reinforced concrete. The cells are individually sealed by a concrete decking and by concrete hatch covers. Seawater may be vented into the cells for cooling, through an integral vent arrangement. The vent ducts may be attached to

pumps when the barge is bouyant. The ducts are also arranged to promote passive ventilation of the cells when the barge is submerged. Packages of the radwaste are loaded into individual cells within the barge. The cells are then sealed and the barge is towed to the designated disposal-storage site. There, the individual cells are flooded and the barge will begin descent controlled by a powered submarine control device to the seabed storage site. The submerged barge will rest on the seabed permanently or until recovered by a submarine control device. **PAT-APPL-6-106 203**. Write: DOE.

Apparatus for Maintaining Alignment of a Shrinking Weld Joint in an Electron-Beam Welding Operation/305

Appareil servant à maintenir l'alignement d'un joint soudé qui se rétrécit pendant une opération de soudage à faisceau électronique/305

Filed January 3, 1980, by the Department of Energy. The invention is directed to an apparatus for automatically maintaining a shrinking weld joint in alignment with an electron beam during an electron-beam multipass-welding operation. The apparatus utilizes a bias means for continually urging a workpiece-supporting face plate away from a carriage mounted base that rotatably supports the face plate. The extent of displacement of the face plate away from the base is indicative of the shrinkage occurring in the weld joint area. This displacement is measured and is used to move the base on the carriage a distance equal to one-half the displacement for aligning the weld joint with the electron beam during each welding pass. **PAT-APPL-6-109 364**. Write: DOE.

Reciprocating Pellet Press/305

Presse à boulettes à mouvement alternatif/305

Filed January 7, 1980, by the Department of Energy. A machine for pressing loose powder into pellets using a series of reciprocating motions has an interchangeable punch and dies as its only accurately machines parts. The machine reciprocates horizontally between powder receiving and pressing positions. It reciprocates vertically to press, strip and release a pellet. **PAT-APPL-6-110 143**. Write: DOE.

Improved Electrostatic Coalescence System with Independent AC and DC Hydrophilic Electrodes/305

Système amélioré à coalescence électrostatique comportant des électrodes hydrophiles à courant continu et alternatif/305

Filed January 9, 1980, by the Department of Energy. An improved electrostatic coalescence system is provided in which independent AC and DC hydrophilic electrodes are employed to provide more complete dehydration of an oil emulsion. The AC field is produced between an AC electrode array and the water-oil interface wherein the AC electrode array is positioned parallel to the interface which acts as a grounded electrode. The emulsion is introduced into the AC field in an evenly distributed manner at the interface. The AC field promotes drop-drop and drop-interface coalescence of the water phase in the entering emulsion. The continuous oil phase passes upward through the perforated AC electrode array and enters a strong DC field produced between closely spaced DC electrodes in which small dispersed droplets of water entrained in the continuous phase are removed primarily by collection at hydrophilic DC electrodes. Large droplets of water collected by the electrodes migrate downward through the AC electrode array to the interface. All phase separation mechanisms are utilized to accomplish more complete phase separation. **PAT-APPL-6-110 738**. Write: DOE.

Method for Improving Dissolution Efficiency in Gas-Absorption and Liquid Extraction Processes/305

Méthode pour augmenter la dissolution dans les procédés d'absorption de gaz et d'extraction de liquides/305

Filed January 11, 1980, by the Department of Energy. A method is described for improving dissolution efficiency in processes in which a feed fluid is introduced to a zone where it is contacted with a liquid solvent for preferentially removing a component of the feed and where part of the solvent so contacted undergoes transfer into the feed fluid to saturate the same. It has been found that such transfer significantly impairs dissolution efficiency. In accordance with the invention, an amount of the above-mentioned solvent is addded to the feed fluid being introduced to the contact zone, the solvent being added in an amount sufficient to effect reduction or elimination of the above-mentioned transfer. Preferably, the solvent is added to the feed fluid in an amount saturating or supersaturating the feed fluid under the conditions prevailing in the contact zone. **PAT-APPL-6-111 495**. Write: DOE.

Penetrameter Positioner for Bore-Side Radiography of Tubes/305

Positionneur d'un pénétromètre utilisé en radiographie latérale de tubes/305

Filed February 5, 1980, by the Department of Energy. A positioner is provided for placing plaque or wire penetrameters, as used in radiographic inspection, in close proximity with the inner wall of tubing at any desired location along the tubing. The positioner head carrying the penetrameter is inflatable whereby it is positioned in the deflated condition, inflated to place the penetrameter against a weld to be inspected in the tubing wall, and then deflated during removal. If desired, the penetrameter holder may be used to center the radiographic source on the axis of the tube. **PAT-APPL-6-118 379**. Write: DOE.

Dilatometer/305

Dilatromètre/305

Filed February 8, 1980, by the Department of Energy. A dilatometer mountable to the exterior surface of pressurized pipe to measure small pressure variations within the pipe is described. The dilatometer includes two rigid beams tied together by nonextensible tensile members on opposite sides of the pipe. One member includes a strain gauge mounted to a strain gauge plate. Dilation of the pipe distends the beams, stressing the gauge plate. The strain is physically magnified on the gauge plate due to its position at the end of the beams and in direct proportion to overall diametral variation of the pipe due to pressure fluctuations. **PAT-APPL-6-119 709**. Write: DOE.

Thermochemical Generation of Hydrogen and Oxygen from Water/305

Production thermochimique d'hydrogène et d'oxygène à partir de l'eau/305

Filed February 8, 1980, by the Department of Energy. A thermochemical cyclic process for the production of hydrogen exploits the reaction between sodium manganate ($NaMnO_2$) and titanium dioxide (TiO_2) to form sodium titanate (Na_2TiO_3), manganese (II) titanate ($MnTiO_3$) and oxygen. The titanate mixture is treated with sodium hydroxide, in the presence of steam, to form sodium titanate, sodium manganate (III), water and hydrogen. The sodium titanate-manganate (III) mixture is treated with water to form sodium manganate (III), titanium dioxide and sodium hydroxide. Sodium manganate (III) and titanium dioxide are recycled following dissolution of sodium hydroxide in water. **PAT-APPL-6-119 738**. Write: DOE.

Radiant Energy Collector/305

Collecteur d'énergie rayonnante/305

Filed February 14, 1980, by the Department of Energy. A cylindrical radiant energy collector is provided which includes a reflector spaced apart from an energy absorber. The reflector is of a particular shape which ideally eliminates gap losses. **PAT-APPL-6-121 541**. Write: DOE.

Overvoltage Protector Using Varistor Initiated Arc/305

Système de protection contre les surtensions au moyen d'un arc produit par varistor/305

Filed February 14, 1980, by the Department of Energy. Coaxial conductors are protected against electrical overvoltage by at least one element of non-electroded varistor material that adjoins each other varistor element and conductor with which it contacts. With this construction, overvoltage current initiated through the varistor material arcs at the point contacts between varistor elements and, as the current increases, the arcs increase until they become a continuous arc between conductors, bypassing the varistor material. **PAT-APPL-6-121 566**. Write: DOE.

Two Stage Liquefaction of Coal/305

Liquéfaction des charbons en deux temps/305

Filed February 25, 1980, by the Department of Energy. A two stage coal liquefaction process and apparatus comprising hydrogen donor solvent extracting, solvent deashing, and catalytic hydrocracking are disclosed. Preferably, the catalytic hydrocracking is performed in an ebullating bed hydrocracker. **PAT-APPL-6-124 057**. Write: DOE.

Sensor for Detecting Changes in Magnetic Fields/305

Capteur pour détecter les variations d'un champ magnétique/305

Filed February 26, 1980, by the Department of Energy. A sensor is described for detecting changes in the magnetic field of the equilibrium-field coil of a Tokamak plasma device that comprises a pair of bifilar wires disposed cir-

cumferentially, one inside and one outside the equilibrium-field coil. Each is shorted at one end. The difference between the voltages detected at the other ends of the bifilar wires provides a measure of changing flux in the equilibrium-field coil. This difference can be used to detect faults in the coil in time to take action to protect the coil. **PAT-APPL-6-124 871**. Write: DOE.

Preparation of Reactive Beta-Dicalcium Silicate/305

Préparation de ß-silicate de dicalcium réactif/305

Filed February 28, 1980, by the Department of Energy. This invention relates to the preparation of fine particles of reactive beta-dicalcium silicate by means of a solid state process which comprises firing a mixture of calcium sulfate, silica, and a reducing additive selected from the group consisting of calcium sulfide, carbon, carbon monoxide, methane, and hydrogen, at a temperature of about 850 to 1000 exp 0 C. A carrier gas such as nitrogen or carbon dioxide may also be added, if desired. A high concentration of sulfur dioxide is a by-product of this process. **PAT-APPL-6-125 406**. Write: DOE.

Modified Spiral Wound Retaining Ring/305

Bague de blocage spirale modifiée/305

Filed August 29, 1980, by NASA. A spiral wound retaining ring 10 with angled ends 214 and 216 is described. The ring is crimped 220 at the same angle as the ring ends to maintain a constant thickness dimension. The angling of the ends of the ring and crimp allow the ends to be positioned closer together while maintaining enough clearance to enable insertion and removal of the ring. By reducing the separation distance between the ends a stronger ring results since the double layer area of the ring is maximized. **PAT-APPL-6-182 880**. Write: NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Heat Pipe Honeycomb Panel/305

Panneau-caloduc/305

Filed September 3, 1980, by NASA. A thermally inert structural panel, having low thermal resistance normal to its sheets, and a high strength-to-weight ratio is described. A honeycomb lattice was sealed from the environment between upper and lower sheets, the inner surfaces which have grooves and are saturated with a working fluid. Openings which include slots and notches, may be contained within the honeycomb lattice for intercell flow of the working fluid within the panel. Heating one sheet of the panel evaporates working fluid on that plate which then condenses on other surfaces within the panel. The condensed fluid is returned to the evaporating plate by capillary flow. **PAT-APPL-6-183 706**. Write: NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Pyroelectric Detector Arrays/305

Dispositif pyroélectrique de détection/305

Filed September 29, 1980, by NASA. A pyroelectric detector array and the method for making it is described. A series of holes formed through a silicon dioxide layer on the surface of a silicon substrate forms the mounting fixture for the pyroelectric detector array. A series of non-touching strips of indium are formed around the holes to make contact with the backside electrodes and form the output terminals for individual detectors. A pyroelectric detector strip with front and back electrodes is mounted over the strips. Biasing resistors are formed on the surface of the silicon dioxide layer and connected to the strips. A metallized pad formed on the surface of layer is connected to each of the biasing resistors and to the film to provide the ground for the pyroelectric detector array. **PAT-APPL-6-191 748**. Write: NASA, Langley Research Center, Mail Code: 279, Hampton, Virginia 23665 and send a copy of your initial correspondence to Canadian Consulate, 3 Parkway Building, Suite 1310, Philadelphia, Pennsylvania 19102, U.S.A.

Beam Connector Apparatus and Assembly/305

Assemblage de connecteurs de poutrelles/305

Filed October 8, 1980, by NASA. A connector apparatus and assembly is described for connecting beams and the like structural members which is particularly advantageous for connecting two members together when moved laterally into place. The connector apparatus requires no relative longitudinal movement between the ends of the beams or members being connected to make a connection joint. The connector apparatus includes a receptacle member and a connector housing carried by opposed ends of the structural member being connected wherein a spring-loaded

connector member is carried by the connector housing which may be released for extension and engagement into the receptacle member. **PAT-APPL-6-195 226**. Write: NASA, Marshall Space Flight Center, Mail Code: CC01, Huntsville, Alabama 35812 and send a copy of your initial corespondence to Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303, U.S.A.

Electrical Cable Molded Seal Assembly/305

Joint scellé moulé pour câbles électriques/305

Filed October 23, 1980, by the Department of the Navy. This invention relates to an electrical cable molded seal assembly for sealing an electrical cable penetration through a bulkhead. The assembly includes a housing, follower, clamp plate, retaining disc, conductor rods and a molded seal assembly. The electrical cable includes an outer jacket, an inner jacket and a plurality of insulated conductors. Conductor rods are individually connected to the individual conductor wires. The molded seal assembly comprises a non-conducting elastomeric material that is molded onto the lower end of the electrical conductor so that it encloses and seals against the outer jacket, inner jacket, spread out insulated conductors and the upper ends of the conductor rods. The molded seal assembly is cylindrical and has an outside diameter that is slightly larger than the interior diameter of the housing. The lower end of the housing is inserted through the bulkhead and welded thereto. The molded seal assembly is inserted into the housing with the conductor rods inserted through openings in a retainer disc and through the bulkhead. A clamp plate connects a follower to the upper end of the housing and compresses the molded seal assembly into a tight high pressure seal between the housing and cable. **PAT-APPL-6-088 255**. Write: NAVY.

Automatic Exposure Control for Pulsed Active TV Systems/305

Commande automatique d'exposition pour systèmes actifs de télévision par impulsions/305

Filed May 7, 1980, by the Department of the Navy. An automatic exposure control system is disclosed for TV cameras, particularly those of the active type wherein a pulsed light source provides scene illumination for the camera. The control system includes a major control loop wherein an instantaneous photocathode current signal is time-separated from the total sensor signal of an image tube and integrated to provide a real-time measure of the total instantaneous light input upon the photocathode of the tube. When the total light input reaches a predetermined exposure level, a pulse is generated for gating off the image tube via a high voltage supply therefor so that a constant effective exposure is provided the photocathode. Peak levels of the photoelectron current are used to vary the amount of light entering the system and a conventional video detector is included to regulate the photocathode voltage thereby permitting a relatively constant video output signal to be maintained throughout a wide range of input light conditions. **PAT-APPL-6-144 811**. Write: NAVY.

Lead Germanate Bonded PZT Composite Piezoelectrics Background of the Invention/305

Matériaux piézoélectriques composites de zirconate titanate de plomb pôlé lié à du germanante de plomb/305

Filed June 2, 1980, by the Department of the Navy. The present invention gives a lead germanate bonded lead zirconate titanate family of composite piezoelectric ceramic materials with a ferroelectric component stabilized against depoling by an insulating grain boundary phase, and a low temperature or liquid phase sintering process for making the composite. The very weak or non-ferroelectric grain boundary phase becomes liquid during the low temperature sintering process and almost totally coats the lead zirconate titanate grains, stabilizing the composite against switching of the grains by inhibiting the transport of charge and isolating the grains from compensation by the bound charge of domains in adjacent grains. Objects of the invention are to provide (1) stabilization for poled lead zirconate titanate grains against depoling under high drive conditions; (2) insulation of poled lead zirconate titanate grains in a ceramic piezoelectric; (3) a lead zirconate titanate composites a stabilization mechanism that will not increase domain wall motion of the PZT grains; (4) a dense lead zirconate titanate piezoelectric ceramic; (5) a process for making lead germanate bonded lead zirconate titanate bonded composite materials; (6) a low temperature sintering process for making lead zirconate titanate piezoelectric ceramic; and (7) a liquid phase sintering process for making lead zirconate titanate piezoelectric ceramic. **PAT-APPL-6-155 830**. Write: NAVY.

Measurement and Compensation System for Beam Forming Array/305

Système de mesure et de compensation pour un réseau détecteur à faisceau sonore/305

Filed June 6, 1980, by the Department of the Navy. This invention describes an apparatus for determining the bearing of an acoustic source from a selected location in an acoustic environment. The apparatus includes a plurality of discrete acoustic sensor elements and a flexible member, having first and second ends, which may be de-

ployed in a linear configuration in the environment. The sensor elements are attached along the flexible member in spaced apart relationship, one of the elements, comprising a lead element, being closer to the first end than any of the other elements. A motion measuring device is coupled to the lead element when the flexible member is deployed in the environment to generate signals which indicate the velocity of the lead sensor element in the environment. A processor, having an input which is limited to lead element velocity signals, generates estimates of the positions of respective sensor elements when the flexible member is deployed in the environment at the selected location, and beam steering equipment, coupled to the processor steers an acoustic detection beam in response to the position estimates to determine the bearing of the acoustic signal source, the acoustic detection beam comprising the combined detection capabilities of the sensor elements. **PAT-APPL-6-157 134**. Write: NAVY.

Master Buoy System for Acoustic Array Deployment, Using Underwater Glide Bodies Remotely Launched from a Submerged Pod/305

Bouée maîtresse d'un système de déploiement de dispositifs sonores sous-marins télécommandés et autopropulsés/305

Filed September 24, 1980, by the Department of the Navy. A method and apparatus deploys a hydrophone array in a predetermined pattern. A master buoy includes a float and an anchor which hold a central portion at a predetermined depth in the water. A number of hydrodynamically shaped glide vehicles are released from the central portion and glide radially outwardly from it. When the glide vehicles come to rest, strings of hydrophones are released and buoyed along the bottom in a preestablished pattern. Acoustic energy impinging on the hydrophones, optionally is fed to a transmitting unit on the float or to a remote installation via a cable lying on the bottom. **PAT-APPL-6-190 111**. Write: NAVY.

Biguanide Diperchlorate and Process for Preparation Thereof/305

Méthode de synthèse du diperchlorate de biguanide/305

Filed October 10, 1980, by the Department of the Navy. It is an object of this invention to provide a new explosive compound and a method of synthesizing it. A further object is to provide an explosive having good impact sensitivity and good thermal stability. These and other objectives of this invention are achieved by providing biguanide diperchlorate, which can be prepared by reacting 2 moles of perchloric acid with 1 mole of biguanide while maintaining the reaction temperature in the range of from 0 C to 20 C. **PAT-APPL-6-195 991**. Write: NAVY.

A Radar Radiometer and Its Use/305

Radiomètre radar et son utilisation/305

Filed October 14, 1980, by the Department of the Navy. A radar radiometer apparatus including a superheterodyne amplifier, a synchronous demodulator, and logic circuitry provides for the interruption of a local oscillator for a portion of each pulse of a radio frequency repetition cycle in order to isolate radar receiver/transmitter coupling and permit simultaneous radiometer use. **PAT-APPL-6-196 225**. Write: NAVY.

In-Situ Particulate Titanium Carbide Surface Composition in Titanium Alloy Matrix/305

Composition superficielle de carbure de titane particulaire appliqué in situ sur une matrice en alliage de titane/305

Filed October 16, 1980, by the Department of the Navy. An article having a wear resistant surface. The surface is defined by discrete hard wear resistant particles, such as titanium carbide (TiC), embedded in a once molten upper region of a tough and ductile matrix, such as titanium or an alloy of titanium. The particles are physically trapped and metallurgically bonded within the matrix region which remains an integral part of the whole matrix as distinguished from a discrete layer or coating thereon. **PAT-APPL-6-197 716**. Write: NAVY.

Weapons Training Apparatus for Simulating Long Range Weapons/305

Dispositif d'entraînement au tir à longue portée/305

Filed October 21, 1980, by the Department of the Navy. A weapons training apparatus is disclosed for simulating long range weapons so as to train a marksman in the use of the particular weapon being simulated. The weapons training apparatus comprises a laser transmitter mounted within the weapon being simulated which, when activated by the marksman, broadcast at a target a square wave beam of layer light having a predetermined frequency. A receiver, mounted upon the target, will sense only a square wave laser light beam having the predetermined frequency mentioned above, and activate a buzzer so as to indicate that the marksman has scored a hit upon the target. **PAT-APPL-6-199 156**. Write: NAVY.

Marksmanship Training Device for Simulating Long Range Weapons/305

Simulateur de tir à longue portée/305

Filed October 22, 1980, by the Department of the Navy. A marksmanship training device is disclosed for simulating long range weapons so as to train a marksman in the use of the particular weapon being simulated. The marksmanship training device comprises a laser transmitter mounted within the weapon being simulated which, when activated by the marksman, broadcasts at a target a square wave beam of laser light having a predetermined frequency. A receiver, mounted upon the target, will sense only a square wave laser light beam having the predetermined frequency mentioned above and activate a buzzer so as to indicate that the marksman has scored a hit upon the target. **PAT-APPL-6-199 406**. Write: NAVY.

Absolute Reflectometer/305

Réflectomètre absolu/305

Filed November 13, 1980, by the Department of the Navy. An apparatus and method to measure the absolute reflectivity of a sample is made by use of a multiple pass reflectometer. A given light beam permits measurement of the absolute reflectivity by comparing a portion of the light beam in a reference White cell to the change in light of another portion of the beam which undergoes equivalent reflections except for the addition of the sample in one configuration as compared to the other. **PAT-APPL-6-206 331**. Write: NAVY.

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

The following technologies are offered for manufacture under license in Canada. When requesting additional information, please quote the reference number. Write: Ms. Lila B. Bates, Manager — Services, Control Data Worldtech, Inc., 474 Concordia Avenue, St. Paul, Minnesota 55103 — Telephone: (612) 292-2150 and send a copy of your initial correspondence to Canadian Consulate, 15 South Fifth Street, Minneapolis, Minnesota 55402.

T1843 — Portable Reverse Osmosis/Ultrafiltration System/305

Available for licensed manufacture and marketing under arrangements to continue development, this system, useable both for reverse osmosis and ultrafiltration, is compact and can eliminate small organics such as formaldehyde, halogened benzenes, urea, etc. One model used for reverse osmosis can produce 70 to 550 litres a day and when used for ultrafiltration, yield 3500 litres a day. Featuring newly developed membranes made of aromatic polyamid with high rejection of salts and organic solutions of low molecular weight, i.e., 99.5 to 99.9 percent of a 0.1 percent NaCi solution, 90 to 95 percent of a 0.1 percent urea solution, 75 to 78 percent of a 0.1 percent phenol solution, and other membranes with even higher rejections of urea and phenol are also available. Some are being tested for the rejection of alcohol which have shown rejection up to 85 percent. The RO/UF cell is a system of stacked horizontal membranes, supported on plastic plates and held together by end plates and metal rods, which give good flow distribution. The design can easily be disassembled to change membranes for a different application. A specially-developed high-pressure minipump weighing less than 2 kg including motor and gear, at 200 rpm has an output of 2.4 litre/hr at 50 atm and a version under development delivers 21 litre/h at 50 atm. The fluid compartment of the high-pressure minipump is isolated from the environment and the entire pump can be sterilized, thus suiting the unit for medical and other applications where sterility is required. Applications for these RO/UF systems include supplying sterile, pyrogen and salt-free water for laboratories, pharmacies, and hospitals; as concentrators of valuable waste products in solution; and in biochemical and medical separations. A hand-operated version under development produces 2.4 litre/hr of potable water from sea water or contaminated water for use as an emergency unit for boats and airplanes.

T6019 — Tomato Peeling and Freezing Process/305

This is a process for peeling tomatoes, without scalding, and freezing them during the harvest season and holding

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

Les techniques suivantes sont proposées pour la fabrication sous licence au Canada. Lors de la demande de renseignements supplémentaires, veuillez citer le numéro de référence. Écrire à: Ms. Lila B. Bates, Chef de service, Data Control Worldtech, Inc., 474 Concordia Avenue, St. Paul, Minnesota 55103 — Téléphone: (612) 292-2150 et envoyer une copie de votre correspondance initiale au Consulat du Canada, 15 South Fifth Street, Minneapolis, Minnesota 55402.

T1843 — Système portatif d'osmose inverse et d'ultracentrifugation/305

Ce système, qui peut être fabriqué et commercialisé sous licence en vertu d'accords relatifs à une exploitation continue, permet d'effectuer l'osmore inverse et l'ultracentrifugation; il s'agit d'un dispositif compact pouvant éliminer de petites molécules organiques comme le formaldéhyde, les benzènes halogénés, l'urée, etc.. Le dispositif pour l'osmore inverse peut traiter de 70 à 550 litres par jour, et celui pour l'ultracentrifugation peut traiter 3500 litres par jour. Ce système utilise des membranes récemment mises au point, constituées d'un polyamide aromatique, permettant d'éliminer une très grande partie des sels et des produits organiques de faible masse moléculaire, soit 99,5 pour cent à 99,9 pour cent du NaCl dans une solution à 0,1 pour cent, 90 pour cent à 95 pour cent de l'urée dans une solution à 0,1 pour cent, et 75 pour cent à 78 pour cent du phénol dans une solution à 0,1 pour cent, le système peut également être utilisé avec d'autres membranes présentant des taux supérieurs d'élimination de l'urée et du phénol. On a montré avec des alcools que certaines membranes présentaient un taux d'élimination atteignant 85 pour cent. L'élément à OI/UF est constitué de membranes disposées à l'horizontale, fixées sur des plaques en plastique et maintenues à leurs extrémités par des plaques et des tiges métalliques qui assurent un écoulement uniforme. Ce système peut être facilement démontré pour changer les membranes en vue d'autres applications. Une mini-pompe haute pression spécialement conçue, pesant moins de 2 kg y compris le moteur.

T6019 — Procédé pour peler et congeler les tomates/305

Ce procédé permet de peler les tomates, sans les échauder, et de les congeler pendant la saison des récoltes afin

them until the harvest season is over for processing into various tomato products throughout the year according to market demand. Advantages: frees the processor from having to process tomatoes as they come in from the fields; permits the processing plant to peel and freeze during harvest and make tomato products in response to market demand; freezing permits savings of approximately ten percent on tomato products that have better flavour, colour and aroma than scalded and canned ones and the bulk, weight, expense and disposal of cans is eliminated. Patents are pending in sixteen countries including Canada.

de les entreposer. Une fois les récoltes terminées, les tomates sont transformées en divers produits tout au long de l'année, en fonction des demandes du marché. Il présente l'avantage d'éliminer la nécessité de transformer les tomates à mesure qu'elles sont récoltées et de permettre de peler et de congeler à l'usine pendant la récolte, la transformation étant effectuée par la suite en fonction des demandes. La congélation permet une économie d'environ 10 pour cent au niveau du produit dont la saveur, la couleur et l'arôme sont supérieurs à ceux des tomates échaudées et mises en conserve et il en résulte une élimination de l'encombrement, du poids et des frais associés aux boîtes de conserve et à leur élimination. Des demandes de brevets ont été faites dans seize pays dont le Canada.

T11105 — Incinerator-Distilling Apparatus Converts Petrochemical Wastes Into Heavy Fuel Oil and Carbon Black/305

Commercially operating apparatus to convert, through incomplete combustion, almost any petrochemical wastes (which are virtually free for the asking) i.e., PVC, ABS plastics and old automobile tires, into heavy fuel oil and carbon black. It produces enough heavy oil to fuel the process and to provide a surplus for sale or use elsewhere. The carbon black is also saleable, for use as a coloring agent in paint and ink, as a filler, etc. The process takes place in a completely sealed chamber, without oxidation during the decomposition process and without emitting any odors, gases, or visual pollution. Unskilled labor can operate the almost fully automatic machinery which requires only periodic checking once operation begins. The apparatus is in commercial use and is available for joint venture or licensed production in Canada. It is perhaps an ideal piece of equipment for landfill operations, industrial facilities which have significant amounts of petrochemical wastes to dispose of, and for other similar applications. The apparatus is currently manufactured in three models with the following specifications: Capacity: 320, 500 and 650 kg; process time: 5, 7 and 8 hrs; oil yield: 125, 200 and 260 litres; oil consumption: 40, 70 and 90 litres; current prices: approximately $73,000, $105,000 and $135,000.

T11105 — Appareil d'incinération et de distillation pour convertir les résidus pétrochimiques en huile lourde et en noir de charbon/305

Appareil présentement au stade commercial permettant de convertir, par combustion incomplète, presque tous les résidus pétrochimiques (qui sont virtuellement gratuits) comme les plastiques PVC, ABS et les vieux pneus, en huile lourde et en noir de charbon. La production d'huile est suffisante pour alimenter le système et pour qu'il en reste pour vendre ou utiliser ailleurs. Le noir de charbon est également commercialisable comme pigment pour les encres ou les peintures, comme matière de charge, etc. La réaction est effectuée dans une chambre totalement close, sans oxydation pendant la décomposition et sans odeurs, gaz ou pollution visible. L'appareillage, presque entièrement automatique, peut être utilisé par de la main-d'oeuvre non spécialisée et, après démarrage, il n'exige que des contrôles périodiques. L'appareillage est déjà au stade commercial et l'on recherche une société s'intéressant à la production sous licence au Canada ou à une entreprise conjointe. C'est peut-être l'appareillage idéal pour les décharges, les entreprises qui doivent se débarrasser de grandes quantités de résidus pétrochimiques et d'autres exploitations de cette nature. Il y a actuellement trois modèles d'appareil ayant les caractéristiques suivantes: Capacité: 320, 500 et 650 kg; temps de traitement: 5, 7 et 8 h; production d'huile: 125, 200 et 260 L; Consommation d'huile: 40, 70 et 90 L; prix approximatifs: $73,000, $105,000 et $135,000.

T12502 — Factory-Based Turf-Growing Process/305

This technology uses a roll of wheat straw, which is embedded with grass seed and fertilizer and coated with a water-soluble adhesive, to start lawns quickly and with a minimum of heavy labor. Application requires only that the user unroll this strip, press it down, and water it. The water dissolves the adhesive to keep the roll in place, and also dissolves the fertilizers. The wheat straw retains moisture to help get the lawn started with a minimum of watering, and eventually breaks down into the new turf. The technology offers the following advantages: light weight for easy handling — the standard 0.6 x 8 meters roll weighs less than 2.27 kg; works on soil usually not receptive to grass seeding; will start a lawn on slopes of up to 45 degrees; minimizes the preparatory cultivation neces-

T12502 — Procédé industriel de fabrication de bandes à gazon/305

Cette technique permet d'obtenir un gazon rapidement, avec un minimum de gros travaux, en utilisant un rouleau de paille de blé, contenant des semences de graminées et des engrais, enduit d'un adhésif hydrosoluble. Pour le poser, il suffit tout simplement de dérouler la bande, de la presser contre le sol et d'arroser. L'eau dissout l'adhésif, maintenant ainsi la bande en place, de même que les engrais. La paille de blé retient l'humidité, favorisant ainsi le démarrage du gazon avec un minimum d'arrosage, et elle finit par se désagréger. Cette technique offre les avantages suivants: légèreté facilitant la manutention — le rouleau normal de 0,6 x 8 mètres pèse moins de 2,27 kg; utilisation sur des sols habituellement défavorables à l'ensemencement; implantation de gazon sur des pentes atteignant 45°;

sary; the grass seed mixture is any combination necessary to match the conditions of the application; and a new lawn is established in approximately 30 days under average conditions. The license includes a business plan; an equipment package; use of the proprietary logo, trade name and trademark; trade secret formulations for the fertilizer, adhesive, and seed mixes; product brochures and other marketing materials. Marketing rights are available except in Australia, New Zealand, Germany, Israel and South Africa.

réduction des travaux culturaux préparatoires; mélange de semences de graminées adaptable aux conditions; et obtention d'un nouveau gazon en trente jours environ dans des conditions normales. La licence comprend un plan d'exploitation, un matériel de base, l'utilisation du logotype, de l'appellation commerciale et de la marque de commerce, la formule secrète pour les mélanges d'engrais, d'adhésif et de semences, des brochures sur le produit et autre documentation commerciale. Des droits de mise en marché peuvent être obtenus sauf pour l'Australie, la Nouvelle-Zélande, l'Allemagne, Israël et l'Afrique du Sud.

Licensing Opportunities Through V/O Licensingorg, USSR

The following technologies are offered for manufacture under license in Canada. When requesting additional information, please quote the reference number. Write: V/O Licensintorg, 31 Ul. Kahovka, 113461 Moscow, USSR and send a copy of your initial correspondence to Commercial Division, Canadian Embassy, 23 Starokonyushenny Pereulok, Moscow, USSR.

Out-of-Roundness Meters/305

Russian engineers at the Design Bureau in Leningrad have developed and are producing new factory-shop out-of-roundness meters with flexible supports which can be used for measuring components thousands of millimetres in diameter with a high degree of precision. Patented in several countries and available for licensing, this instrument makes it possible to detect any deviation of the large size component's radius from the average section circumference and to measure the radial pay of the revolution bodies' surfaces, their deviation from the cylindrical shape, non-coaxiality of shaft, etc.

Quarry Rotary Bucket Excavator/305

Soviet designers have developed a rotary-bucket excavator with a totally different working member. Soil is discharged from the buckets by centrifugal force generated by high rotor revolutions. It is, therefore, considerably lighter, reducing the total weight of the machine which substantially improves such important characteristics as output, specific cutting force, radius of excavation. Advantages: the diameter of the centrifugal rotor is one half of that of a conventional excavator of the same output capacity; its angular speed of rotation is nearly four times as fast; loads on the jib are 37 to 50 percent lower due to reduced torque and excavating effort; vibrations are considerably reduced owing to high revolutions of the rotor which reduces dynamic loads by 20 to 30 percent; the teeth of the rotor bucket last four to five times longer than conventional ones; the life of conveyor belts are extended and conveyor maintenance is reduced — lumps of earth or rock measure 50 to 150 mm, 250 mm being the maximum; there is no need for a crusher; dust pollution is reduced as the conveyors are sealed and the working faces and reloading areas are water-sprinkled. (See illustration page 46.).

Possibilités d'acquisition de licences par l'intermédiaire de V/O Licensintorg, URSS

Les techniques suivantes sont proposées pour la fabrication sous licence au Canada. Lors de la demande de renseignements supplémentaires, veuillez citer le numéro de référence. Écrire à: V/O Licensintorg, 31, rue Kakhovka, 113461 Moscou (URSS) et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Ambassade du Canada, 23 Starokonyushenny Pereulok, Moscou (URSS).

Indicateurs d'ovalisation/305

Des ingénieurs soviétiques du Bureau de dessin de Leningrad ont réalisé et fabriquent actuellement un nouveau type d'indicateur industriel d'ovalisation à support flexible. Cet instrument de très grande précision peut mesurer l'ovalisation de pièces de plusieurs mètres de diamètre; breveté dans de nombreux pays et offrant des possibilités de licence, il détecte toute déviation du rayon d'un objet par rapport à sa circonférence moyenne; il mesure également le jeu radial de la surface des corps en rotation, leur ovalisation, le faux-rond de leur arbre, etc.

Roue pelleteuse/305

Des dessinateurs soviétiques ont mis au point une roue pelleteuse munie d'un élément mobile entièrement nouveau. La terre sort des godets sous l'effet de la force centrifuge créée par le régime élevé de la roue. Cette roue est donc beaucoup plus légère que les autres; le poids global de la machine est réduit, ce qui améliore grandement des caractéristiques importantes comme la capacité, la force de coupe spécifique et le rayon d'excavation. Avantages: le diamètre de la roue centrifuge est deux fois plus petit que celui des excavateurs classiques de la même capacité; la vitesse angulaire de rotation est environ quatre fois plus élevée; le couple et l'effort d'excavation sont plus faibles, ce qui réduit les charges s'exerçant sur la flèche de 37 pour cent à 50 pour cent; les vibrations sont réduites considérablement puisque le régime élevé de la roue fait diminuer les charges dynamiques de 20 pour cent à 30 pour cent; les dents des godets durent quatre à cinq fois plus longtemps que les dents classiques; les bandes transporteuses exigent moins d'entretien et la bande elle-même dure plus longtemps — les blocs de terre ou de roc mesurent de 50 mm à 150 mm, 250 mm étant le maximum; il n'est pas nécessaire d'utiliser de concasseur; la poussière est réduite, du fait que les bandes transporteuses sont protégées et les surfaces de travail et les points de transbordement sont équipés de vaporisateurs d'eau. Voir l'illustration page 46.).

ZIL-EF Binder/305

Russian technology is available under license to produce a new compound, using fairly cheap and widely available additives, for producing moulds for casting by the lost wax process wherein organic solvents are completely excluded and the quantity of ethyl silicate is considerably reduced. In addition, it is claimed that moulds become stronger, the durability of suspensions used in mould fabrication is also substantially improved and the binder guarantees complete explosion safety of mould fabrication.

Liant ZIL-EF/305

Une technologie soviétique est disponible sous licence pour un mode de fabrication d'un nouveau composé en utilisant des additifs peu coûteux et facilement disponibles. Ce composé permet de réaliser des matrices pour moulage suivant le procédé à cire perdue, sans utiliser de solvants organiques et en diminuant de beaucoup la quantité de silicate d'éthyle nécessaire. En outre, ce procédé permettrait de réaliser des matrices plus résistantes, d'accroître la durabilité des suspensions utilisées lors de la fabrication des moules et d'éliminer tout risque d'explosion lors de la fabrication.

Manufacturing Opportunity Abroad

Electrical/Mechanical Product/Process/305

British subsidiary of NEI Ltd. currently manufacturing and marketing electrical insulating material worldwide seeks licenses to manufacture, within its Park Green Works facilities, new products and processes allied to electrical/mechanical engineering. The firm is prepared to invest in new equipment and machinery for suitable products. Write: Mr. W.L. Whitelaw, General Manager, NEI Reyrolle Ltd., Park Green Works, Macclesfield, Cheshire, England SK11 7NE and send a copy of your initial correspondence to Commercial Division, Canadian High Commission, One Grosvenor Square, London W1X 0AB, England.

Possibilité de fabrication à l'étranger

Produits et procédés de fabrication électromécaniques/305

Une filiale britannique de la NEI Ltd. fabrique actuellement des matériaux isolants électriques qui sont offerts sur le marché mondial. La société désire acquérir des licences de fabrication de nouveaux produits électriques ou mécaniques pour lesquelles elle se procurera le matériel et la machinerie nécessaire. Écrire à: Mr. W.L. Whitelaw, General Manager, NEI Reyrolle Ltd, Park Green Works, Macclesfield, Cheshire, England SK11 7NE et faire parvenir une copie de votre correspondance initiale à la Division commerciale, Haut-commissariat du Canada, 1 Grosvenor Square, Londres W1X 0AB (Angleterre).

Bibliography

Reading material listed hereunder may be reviewed in public libraries or obtained from the original publisher as indicated.

When noted, copies of material are available from the Interlibrary Loan and Photocopying Service of the Canadian Institute for Scientific and Technical Information (CISTI), National Research Council of Canada, Building M-55, Montreal Road, Ottawa, Ontario K1A 0S2. Rates for reprints from CISTI are $2.20 per request for up to 10 pages and 22 cents for each additional page. Remittances in the form of cheques or money orders should be made payable to the Receiver General for Canada, credit N.R.C., giving all required bibliographic information; i.e., title, author, date of issue of magazine, and numbers of the pages.

Bibliographie

Les documents dont la liste est donnée ci-après peuvent être consultés dans les bibliothèques publiques ou obtenus des maisons d'édition, selon l'indication donnée.

Dans les cas indiqués, des copies peuvent aussi être obtenues du Service du prêts interbibliothèques et de reprographie de l'Institut canadien de l'information scientifique et technique (ICIST), Conseil national de recherches du Canada, Édifice M-55, chemin de Montréal, Ottawa (Ontario), K1A 0S2. Le tarif des copies est de 2$ pour chaque document de 10 pages ou moins et de 22 cents pour chaque page supplémentaire. Prière d'établir ses chèques ou ses mandats-poste à l'ordre du Receveur général du Canada, au crédit du Conseil national de recherches. Ne pas oublier de donner tous les renseignements bibliographies requis: titre, auteur, date de publication de la revue et nombre de pages.

Amendments to the U.S. Patent Law/305

On December 12, 1980, the United States Congress approved Public Law 96-517 (Bill H.R. 6933), an act to amend U.S. patent and trademark laws.

Effective December 12, 1980, the Patent and Trademark office sets charges for maintaining in force patents applied for after December 12, 1980 which are payable at 3 1/2, 7 1/2 and 11 1/2 years after issuance. The patent will expire if fees are not paid within a 6 month grace period and a surcharge may be required as a condition of late payment within this grace period. Also, patent and trademark filing and processing fees are liable to change on October 1, 1982 to recover 25 percent of patent processing and 50 percent of design patent processing. All other services or materials related to patents will be recovered at an average cost of performing the service or furnishing the material and may be adjusted once every three years.

Effective July 1, 1981, reexamination of patents is authorized on the petition of any person who cites printed prior art which raises a substantial question of the patentability of the patent questioned.

Effective July 1, 1981, a government-wide policy will be established to determine ownership of patent rights arising from government R&D contracts. This will enable small contractors and/or inventors to retain the title to patents while the government retains royalty fee rights to practice the invention.

Effective 60 days following notice in the Federal Register, fees for filing and processing trademark applications and for service performed and materials furnished by the Patent and Trademark Office relating to trademarks, will be set to recover 50 percent of the processing or service. These fees are adjustable no more than once every three years.

Also dealt with are: rights to funded inventions, disposition of rights, domestic and foreign exclusive and non-exclusive licensing by Federal Agencies, restrictions, anti-trust liabilities and limitation of computer program rights.

Modifications de la loi américaine sur les brevets/305

Le 12 décembre 1980, le Congrès des États-Unis a adopté la loi 96-517 (Bill H.R. 6933), visant à modifier les lois sur les brevets et les marques de commerce (An Act to amend the patent and trademark laws).

Depuis le 12 décembre 1980, le Bureau des brevets et des marques de commerce (Patent and Trademark Office) exigent des droits pour maintenir en vigueur les brevets délivrés après le 12 décembre 1980, payables 3 1/2, 7 1/2 et 11 1/2 ans après la délivrance. Si les droits ne sont pas acquittés au cours d'une période de grâce de 6 mois, le brevet expire, et même à l'intérieur de la période de grâce on peut demander un supplément pour paiement tardif. De plus, les droits de présentation et de traitement des demandes de brevet et de marque de commerce pourraient changer le 1er octobre 1982 pour permettre de récupérer 25 pour cent des frais de traitement des brevets et 50 pour cent des frais de traitement des brevets de conception. Tous les autres services et matériels liés aux brevets seront facturés au coût moyen du service ou du matériel et ce coût pourra être réajusté tous les trois ans.

A compter du 1er juillet 1981, un brevet peut être réexaminé si une personne en fait la demande par écrit et renvoie à de la documentation publiée antérieurement au brevet qui soulève suffisamment de doute sur la brevetabilité de l'invention visée.

A compter du 1er juillet 1981, une politique gouvernementale établira la propriété des droits aux brevets découlant de contrats gouvernementaux de R & D. Cette politique permettra aux petits entrepreneurs ou inventeurs de conserver la propriété des brevets tandis que le gouvernement conservera le droit à des redevances lors de la mise en pratique de l'invention.

Les droits de présentation et de traitement des demandes de marque de commerce et le coût des services et matériels fournis par le Bureau des brevets et marques de commerce, seront fixés, soixante jours après la parution dans le registre fédéral, de façon à recouvrer 50 pour cent des coûts du traitement et des services. Ces droits ne peuvent être rajustés plus d'une fois tous les trois ans.

La loi traite également des sujets suivants: droits aux inventions résultant de recherches subventionnées; disposition des droits; délivrance de licences, nationales ou étrangères, exclusives ou non exclusives, par des organismes fédéraux; restrictions; responsabilités anti-trust et limitation des droits aux programmes informatiques.

Manual on Licensing Procedures in Member Countries of the United Nations Economic Commission for Europe/305

Price U.S. $110. Two volumes (issued loose leaf for future revision in English, French, Russian — specify which language when ordering). This reference manual is not a "how-to-license" instruction book. Instead, it outlines and catalogues in a consistent format, country-by-country, information helpful to the licensing executive relative to joint ventures, licensing transactions and agreements, and related legal matters. Major headings within each country chapter include: Assessing licensing opportunities; search for partners; alternative methods of acquiring technology; scope of license (includes legal limitations); evaluating technology; secrecy agreements; technology description; procurement and assembling; training personnel; test runs (start ups); liabilities (and warranties); modes of payment; compensation in goods; financing; fiscal (taxes); improvements; trademark licensing, licensing contract provisions; annex contracts; and, special factors (role of government. The countries covered are Belgium, Bulgaria, Canada, Czechoslovakia, Finland, France, Germany (West), Germany (East), Hungary, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Turkey, USSR, U.K., U.S.A.

Other ECE member countries may be added via updates. Each country chapter also has a section with references to legal documents, bibliographies, and lists of addresses. A glossary of terms and an ECE prepared international bibliography complete the works. Available from: Clark Boardman Company Ltd., 435 Hudson Street, New York, New York 10014.

Manual on Licensing Procedures in Member Countries of the United Nations Economic Commission for Europe/305

Prix: 110$ US. En deux volumes, à feuilles volantes pour révisions futures; en français, anglais et russe: préciser la langue désirée sur la commande. Ce manuel de référence n'est pas un guide d'instructions sur les méthodes d'obtention de licences. Il s'agit plutôt d'un document qui répertorie et catalogue sous une forme cohérente et par pays des renseignements utiles sur les entreprises en participation, les transactions de licences et ententes ainsi que sur des questions juridiques connexes. Les principales rubriques des sections par pays sont: évaluation des possibilités de licences; recherche d'associés; autres méthodes d'acquisition de la technologie; portée des licences (incluant les limites juridiques); évaluation de la technologie; ententes sous secret; description de la technologie; approvisionnements et assemblage; formation du personnel; batteries d'essais; responsabilités (et garanties); modalités de paiement; compensation en nature; financement; fiscalité (taxes); améliorations; cession sous licence de marques de commerce; stipulations des contrats de cession de licence; contrats connexes; et facteurs spéciaux (rôle du gouvernement). Les pays répertoriés sont l'Allemagne de l'Est, l'Allemagne de l'Ouest, la Belgique, la Bulgarie, le Canada, l'Espagne, les États-Unis d'Amérique, la Finlande, la France, la Hongrie, la Norvège, les Pays-Bas, la Pologne, la Roumanie, le Royaume-Uni, la Suède, la Suisse, la Tchécoslovaquie, la Turquie et l'U.R.S.S. D'autres pays membres de la C.E.E. pourraient s'y ajouter lors des mises à jour. Chaque section par pays comporte aussi des renvois aux documents juridiques, des bibliographies et des listes d'adresses. Un glossaire et une bibliographie internationale dressée par la Commission économique pour l'Europe complètent l'ouvrage. Commander chez: Clark Boardman Company Ltd., 435 Hudson Street, New York, New York 10014.

Seminars/305

Two consecutive courses **Introduction to Technology Worldwide** and **Advanced Technology Transfer Worldwide**, co-sponsored by the American Management Association and the Licensing Executives Society U.S.A./Canada, are to be held in New York City, June 22-23 and June 24-26, 1981 from 9:30 a.m. to 4:30 p.m. If you have technology to sell or want to acquire the know-how of others, these specialized courses on technology transfer will raise your level of expertise fast. The courses provide a comprehensive overview and analysis of the complex technology transfer field. LES which assisted in the development of these programs has arranged for recognized authorities to lead each session. Course topics June 22-23 include: Basics of Licensing; The Role of Patents, Trademarks & Other Proprietary Assets; The License Agreements; Business Aspects of Licensing; A Licensee's Viewpoint; Organization of the Licensing Function; Basic Anti-Trust Considerations; Infringement & Other Litigation; Successful Case Histories; and, a Panel Discussion with Questions and Answers. Course topics June 24-26 include: Technology Acquisition; Case Study in Worldwide Technology; What Licensees are Looking For; Concurrent Workshops in General Licensing Aspects; Anti-Trust, Patent Misuses, Restrictive Business Practices & Other Problems; Special Trademark Licensing Problems; Licensing in the '80s; Licensing in Specific Countries; Panel Discussion: Special Foreign Licensing Problems; and, Licensing Negotiations. Price: Two day meeting — Members AMA U.S. $420.00, non-members U.S. $480.00; three day meeting — Members AMA U.S. $585.00, non-members U.S. $675.00; both meetings — Members AMA U.S. $750.00, non-members U.S. $855.000. For information contact John T. Cunningham, Manager, International Division, American Management Association, 135 West 50th Street, New York, N.Y. 10020. Telephone: (212) 586-8100.

Conférences/305

Deux cours portant sur la technologie à l'échelle mondiale seront donnés, en anglais, à New York, les 22-23 et 24-26 juin 1981 entre 9h30 et 16h30, avec le parrainage de l'American Management Association et de la Licensing Executives Society U.S.A./Canada. Si vous voulez vendre ou acquérér de la technologie, ces cours sur les transferts de technologie accroîtront votre compétence en peu de temps, car ils examinent et analysent en profondeur ce domaine complexe. La L.E.S., qui a participé à la création des programmes, a invité des experts renommés à diriger chaque séance. Le cours des 22 et 23 juin portera notamment sur les sujets suivants: l'octroi des licences, le rôle des brevets, les marques déposées et autres propriétés commerciales, les contrats de licences, les aspects commerciaux des licences pour les preneurs, l'organisation de l'octroi des licences, les monopoles, les contrefaçons et autres questions litigieuses, une étude de cas, des discussions et une période de questions et réponses. Le cours du 24 au 26 portera sur l'acquisition des technologies, les technologies d'application mondiale, les besoins des preneurs de licences, les licences (généralités), les mesures anti-monopoles, les abus de brevets et les pratiques commerciales restrictives, les particularités des licences portant sur des marques déposées, les licences dans les années 80 et dans certains pays, une discussion sur les problèmes propres aux licences à l'étranger et enfin, la négociation d'une licence (les titres exacts des conférences sont fournis dans le texte anglais). Frais d'inscription: Cours de deux jours: membres de l'AMA, $420. U.S., les autres, $480. U.S. Cours de trois jours: membres de l'AMA, $585. U.S., les autres $675. U.S. Les deux cours: membres de l'AMA, $750. U.S., les autres $855. U.S. Pour de plus amples renseignements, entrer en communication avec M. John T. Cunningham, Manager, International Division, American Management Association, 135 West 50th Street, New York, N.Y. 10020. Téléphone: (212) 586-8100.

Reach of the U.S. Antitrust Laws: What You Don't Know Can Hurt You/305

Canadian Business Review, Spring 1981 issue. 3 pp. by Barry R. Campbell. Article describes ways in which Canadian or foreign companies may run afoul of the long arm of the United States antitrust laws. Includes reference to joint venturing and licensing, mergers and acquisitions. Copies available from CISTI et $2.20 each.

Patent and Trademark Guide/305

Price: U.S. $15.95, 186 pp, by David A. Burge, 1980. Directed at inventors, and others involved in the patent process, the author discusses relationships with patent attorneys, the basics of patent practice, what can be patented and by whom, preparing, applying, and prosecuting patent applications, and maintaining proper invention records. Also included is advice on planning a patent program, trademark selection and use, copyrights, foreign patent protection, and how to protect trade secrets. Available from: John Wiley & Sons, 605 Third Avenue, New York, New York 10016.

Organization of International Joint Ventures/305

Price: C.B. Associate Member — U.S. $10.00, Non-Associate — U.S. $30.00. A research report by Allen R. Janger, Senior Research Associate, The Conference Board, 1980, 32 pp. An analysis of discussions with 60 executives from more than 20 joint venture companies and a questionnaire survey of over 150 companies. While few executives admit to favouring the idea, research shows that predominently successful companies are engaged in joint ventures. The reasons for forming joint venture affiliations are: to override economic and political considerations; to meet the strategic goals of the corporation; a desire to share increased economic risk in new business ventures; to reduce financial risk by host government incentives; to ultimately acquire a potential partner; to have an affiliate knowledgeable in local laws and responsive to host governments; to obtain an export base; to profit from sale of technology; to join with companies unrelated to immediate business in order to operate on an international sphere; to participate in a new and growing market; to share in management (mostly long term objectives); to combine technological capabilities and technical and marketing know-how, to obtain raw materials; to form trading companies; and, joint venture has been used to meet the strategic goals of the corporation. Other chapters discuss organizational planning, the basic structure, and optional management structures.

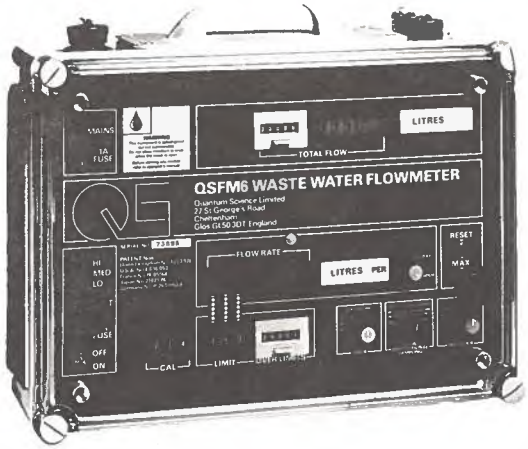
Brand Franchise Extension: New Product Benefits from Existing Brand Names/305

Business Horizons, Volume 24, Number 2, March/April 1981 issue, pages 36 to 41 inclusive by Edward M. Tauber. Article explores channels for new product development and explains how they can prove beneficial in evaluating and redefining the nature and direction of companies. Reprints available from CISTI.

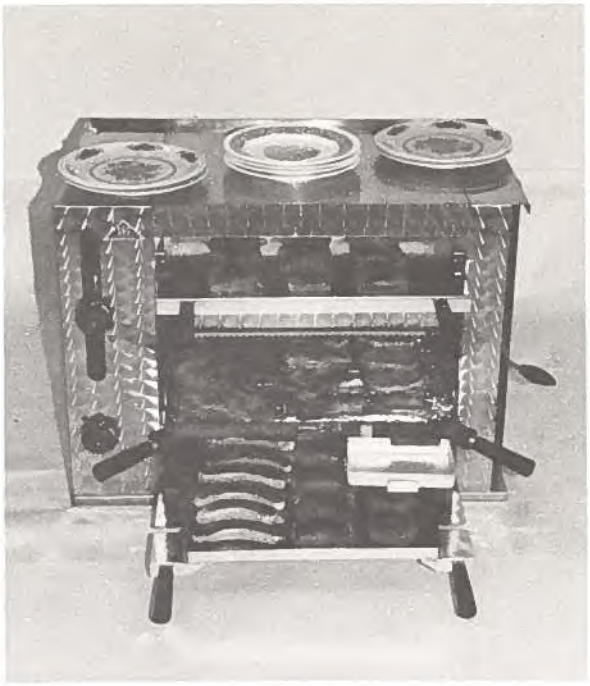
Taking Technology to Market/305

Harvard Business Review March/April 1981, 10 pp., by David Ford and Chris Ryan. The integration of product life cycle sales and technology life cycle sales are discussed. According to the authors of this article, using a technology solely in product sales is no longer enough. Today, companies face high R&D costs, competitive pressures from low-cost producers, capacity limitations, antitrust laws, financial difficulties, and foreign trade barriers. This means that they must improve the rate of return on their technology investments by marketing their technology as completely as possible during all phases of its life cycle. Copies available from CISTI at $2.20 each.

13 Meter Yacht (See page 11)
Yacht de 13 mètres (Voir page 11)

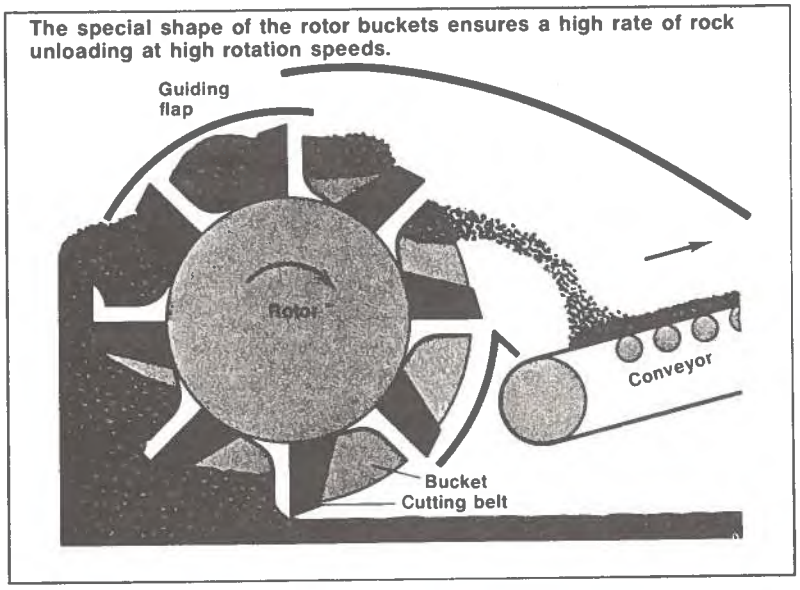


Waste Water Flowmeters and Samplers (See page 10)
Débitmètres et échantillonneurs d'eaux usées (Voir page 10)

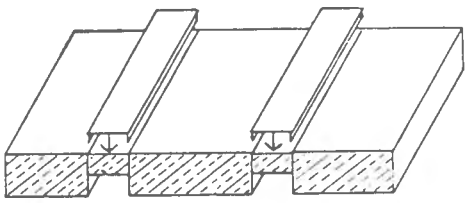


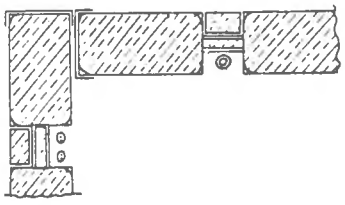
Combination Gas Grills (See page 12)
Gril combiné au gaz (Voir page 12)

Highway Safety Device (See page 14)
Dispositif de sécurité routière
(Voir page 14)



Quarry Rotary Bucket Excavator
(See page 40)
Roue pelleteuse
(Voir page 40)





Insulated Construction Panels
(See page 12)
Panneaux de construction isolants
(Voir page 12)

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