



A BULLETIN
FROM
TIFAC

INTELLECTUAL PROPERTY RIGHTS (IPR)

VOL 5 NO. 4-6 APRIL-JUNE, 1999

A patent on use of Jamun, Bitter Gourd, Gur-mar and Eggplant as Anti-diabetic Agents

A patent has been granted in the US (Pat. No. 5,900,240) on edible herbal compositions, comprising mixtures of at least two herbs selected from the group consisting of *Syzygium cumini* (Jamun), *Gymnema sylvestre* (Gur-mar, Hindi; Mera-singhi, Bangla; Cherukuringi, Tamil), *Momordica charantia* (Bitter gourd) and *Solanum melongena* (Eggplant or Brinjal), useful as hypoglycemic agents. The patent was granted to Cromak Research Inc., New Jersey, USA on May 4, 1999. The inventors are Onkar S. Tomer, Peter Glomski and Kripanath Borah.

Prior Art

The document mentions about the limitations and side effects of insulin controlling medicines. It also highlights the fact that a patient of non insulin dependent diabetes (glucose level of 110-140) has to follow a disciplined programme of diet and exercise to avoid the necessity of taking medication to control blood sugar levels. The insulin dependent diabetic patients must have insulin administered to them in a very rigorous and disciplined manner. These limitations and side effects are expected to be overcome by the present invention.

Present Invention

The object of the invention is to provide an edible herbal dietary supplement which will be tolerated by insulin-dependent diabetes sufferers without

undesirable side effects and which will allow blood glucose levels to be controlled to a level below that achievable by administration of insulin. A further object of the invention is to provide a herbal composition which is relatively inexpensive and in a form which can be readily ingested.

The invention pertains to an edible composition comprising of at least two herbs from the group of Jamun (*Syzygium cumini*), Gur-mar (*Gymnema sylvestre*), Bitter Gourd (*Momordica charantia*) and Eggplant (*Solanum melongena*). A mixture of *Syzygium cumini*, *Gymnema sylvestre* and *Momordica charantia* is particularly preferred.

The ratio of the herbs in the edible composition is not critical, e.g. each herb may be present in amounts as low as 10 wt. %, based on the weight of the composition, with the balance being the other herb(s). However, as a matter of convenience, it is preferable that the composition contains approximately equal amounts of each herb. Preferably, the compositions contain no fillers or enhancing agents, since such materials are unnecessary and merely serve to dilute the effective concentration of the herbs and to decrease the absorption rate into the blood-stream after ingestion.

The individual herbs are milled and mixed as dry powders. The dry powder mix may then be further processed into the form of compressed tablets, caplets or lozenges or processed into pouches (i.e. 'tea' bags), from which water infusions are ingested.

The preferable method of processing the

contd on...2

Patent is a territorial right specific to a country.

Contd from...1

A US Patent on...

compositions of the invention for ingestion is to package the powdered herbal mixture into gelatin capsules (preferably hard gelatin) of a size preferably of the order of zero or double zero. Such capsules would contain preferably about 450 mg of the powdered herbal mixture per capsule. It has been found that hard gelatin capsules represent the most efficient, economical form of packaging of the edible composition of ingestion.

In respect to *Syzygium cumini*, the desired herbal powder is obtained by milling the dry seed kernels in a suitable mill to a fine powder. In respect to *Gymnema sylvestre*, the desired herbal powder is obtained by milling the dried vine along with the dried leaves in a suitable mill to a fine powder. In respect to *Momordica charantia* and *Solanum melongena*, the entire fruits are dried and milled in a suitable mill to a fine powder. The efficacy of one of the herbal mixtures so obtained is given in the following example.

The dosage of the herbal compositions of the invention to be ingested will vary, depending on factors such as severity of the diabetes, age, physical condition and body weight of the patient, diet, etc.

Example

Fine powders of *Syzygium cumini*, *Gymnema sylvestre* and *Momordica charantia* were blended in equal amount of each herb and the hypoglycemic effect of the blended powder was tested upon a human being. The test patient was an insulin-dependent diabetic female of 56 years of age and a body weight of 65 kg. The test subject exhibited the daily blood glucose level, with administration of 40 units/day of insulin, measured daily at 8:00 A.M. After 7 days, the subject continued administration of the same number of units of insulin per day and commenced ingestion of 5 size zero hard gelatin capsules containing 450 mg per capsule of the herbal powder mixture per day for a period of 7 days. Thereafter, the subject discontinued administration of the insulin and ingested the 5 size zero hard gelatin capsules containing 450 mg per capsule of the herbal powder mixture per day for 7 days. The results of this tests showing blood glucose levels are tabulated below :

Table

Day	Insulin only	Day	Insulin + Herbal Powder	Day	Herbal Powder only
1	217	8	223	15	207
2	253	9	178	16	180
3	232	10	190	17	171
4	218	11	183	18	169
5	236	12	200	19	185
6	224	13	210	20	192
7	172	14	180	21	164

Claims

The patent has 12 claims, covering different compositions of the herbal mixture, the method of treatment of diabetes mellitus in mammals, including human beings and the preferred dosage. Important claims are reproduced below.

1. An edible composition for use as a hypoglycemic agent in mammals comprising 300-600 mg of a mixture of at least three herbs selected from the group consisting of *Syzygium cumini*, *Gymnema sylvestre*, *Momordica charantia* and *Solanum melongena*, each of the foregoing herbs being present in approximately equal amounts.

2. The composition of claim 1 comprising a mixture of *Syzygium cumini*, *Gymnema sylvestre* and *Momordica charantia*.

3. A method of treatment of diabetes in a mammal wherein the mammal ingests 2-12 hard gelatin capsules of size 0 or 00 per day, each such capsule containing 300-600 mg of the composition of claim 2.

Note : Extracts of three plants, namely, *Syzygium cumini* (Jamun), *Gymnema sylvestre* (Gur-mar) and *Momordica charantia* (Bitter gourd) have been reported to have shown hypoglycemic activities. Some of these have been tried on normal and diabetic rabbits. The fruits, leaves and roots of *Momordica charantia* have long been used in India as a folk remedy for diabetes mellitus. Leaves of *Gymnema sylvestre* are useful in the management of maturity onset diabetes and is an important ingredient in ayurvedic formulation for diabetes (References : 1. The Wealth of India, Vol 5, 1990-94; 2. The Compendium of Indian Medicinal Plants, Vol 1-5, 1962-1998; 3. The Treatise on Indian Medicinal Plants, Vol 4, 1995) The patent document has not mentioned the above findings under the prior art.

Incremental inventions are also patentable.

A Case Law on Infringement of a Registered Design

The present case that deals with the infringement of a registered design was decided in the High Court at Madras on 20th October, 1997. The suit was fought between Salzer Electronics Limited, Coimbatore, now referred to as the plaintiff and Zenith Mould & Tools Private Limited & Farma Electricals Private Limited, now referred to as the defendants. Plaintiff was manufacturing rotary switches that could give constant supply even during power cut and also protect electrical gadgets and domestic equipments from damage despite power fluctuation. For these switches the plaintiff had obtained the know how to manufacture and the right to improve upon design from a German company, Salzer Schalger to Babrie through an agreement in 1984.

After research and development the plaintiff created a novel design for the components and parts including size, shape, look, colour mix and configuration. They also obtained design registration on 11.2.93 for its contact stage and cover plate under section 47 of the Design Act 1911 and were selling these switches under the name **SALZER**. In February 1997, the plaintiffs noticed that switches similar in design, but of inferior quality were being sold in the market under the trade name **ZENITH**. The defendants had imitated the plaintiff's registered design in the contact stage and cover plate in order to mislead the consumers and enjoy the reputation

earned by the plaintiff. The plaintiff thereafter filed a suit seeking a decree for :

- (i) permanent injunction to prevent infringement of plaintiff's registered design
- (ii) an order to injunct the defendants from passing off their inferior products as those of the plaintiff.

The defendants filed counter affidavit alleging that:

1) The design registered and shown by the plaintiff in the typed set were entirely different from the product designed by the plaintiff.

2) The design developed by the plaintiff was not novel. Many companies were already developing such switches.

3) There was no evidence which could show that 'Salzer' had been ever registered under the Trade & Merchandise Act, 1958

4) The yellow square plate with red knob and the contact stage in the rear portion of the rotary switch are all not registrable under the Design Act.

5) There is no proof that colour and design had ever been registered.

The plaintiff filed a reply saying that the Controller of Patents and Design would not have registered the design if it had not been novel.

The Single Judge, however considering the pleas of both the parties dismissed both the applications of the plaintiff and directed the defendants to

contd on...4

Changes in fees charged by the Indian Patent Office

The fee structure for obtaining patents in India has been revised from June 2, 1999 and the notification to this effect was published in the Gazette of India of June 8, 1999. For the first time in India, two different fees have been introduced for an individual(s) applicant and a legal entity other than individuals. The fees for the exclusive marketing right has also been revised. The new fee structure is given below:

	Individuals (Rs)	Legal entity (Rs)
Filing fees	1,500	5,000
Sealing fees	5,000	5,000
Maintenance fees for 14 years	22,400	70,800
EMR fees	25,000	75,000

(Readers may refer to the above Gazette for more details).

Patent is a territorial right specific to a country.

Contd from...3

A Case Law...

change the colour scheme of their switch and continue selling the switches with a colour scheme different from that of the plaintiff.

Hereafter, the plaintiff, now referred to as the appellant filed an appeal in the High Court against the defendants, now referred to as the respondents. The appellant now had the following arguments favouring their cause:

1) The photocopy of the certificate of registration of design dated 11.2.93 showed that the contact stage and cover plate was registered in Design No 165316 in the name of Salzer Electronics Ltd. Also at the bottom of the Sheets I, II, III annexed to the said certificate which showed the top, rear and side view of the switches was written clearly that 'Novelty resides in the shape and configuration of the contact stage and cover plate.' Hence the respondent's argument that switches are not novel was refuted.

2) The annual reports for the years 1986-1996 of the appellant showed the turnover from Rs. 0.26 lakhs to 631.07 lakhs. They have also filed copies of Exise Registration Certificates and other related documents. This shows the kind of reputation that they have earned for their switches during this period. The respondents have not given any clear picture of the figures relating to the turnover. So the balance of convenience is also in the favour of the appellants.

3) A mere look at the switches produced by the appellants showed that the two switches had no difference except the names Salzer and Zenith written on them.

Allowing both the appeals of the plaintiff the Court HELD:-

1. The certificate of registration issued by Controller General Patents, Designs & Trade Marks clearly mentions that there was novelty in the shape and configuration of contact stage and cover plate from top view, bottom view, rear view and side view.

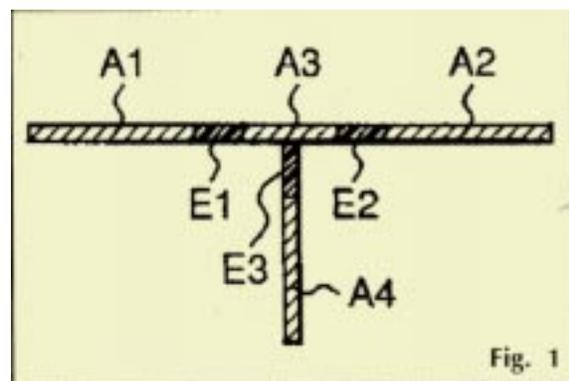
contd on...7

Application of proteins and lipids in electronics - a case study of a single electron transistor

The present invention relates to a single electron transistor wherein single electron tunneling phenomenon can be generated at room temperature. A patent on this theme (Pat No. 5,646,420) was granted by the United States Patent and Trademark Office (USPTO) to a Japanese company, Matsushita Electric Industrial Company Limited in July 1997.

Background and Prior Art

The single electron transistor has been considered as a substitute for MOSFET, which is the leading device of a solid state transistor, because the demand for super miniaturization in a size of less than a submicron can be realized by application of SET to molecule devices. Hitherto, the single electron transistor has been made containing a quantum dot means composed of polycrystalline silicon having a size of 5-8 nm in width, 10-20 nm in height and about 100 nm in length. The single electron transistor was fabricated as shown in FIG. 1 by firstly connecting three polyacetylene conductors A1, A2 and A3 through a pair of



polyethylene insulators E1, E2 used as a tunnel junction, and secondly connecting the middle conductor A3 through a third polyethylene insulator E3 to a fourth polyacetylene conductor A4. It was reported that the opposite end conductors A1 and A2, respectively, act as an electrode, the middle conductor acts as the quantum dot means and the fourth conductor acts as a control gate. However, where the quantum dot means is a semiconductor

contd on...5

Incremental inventions are also patentable.

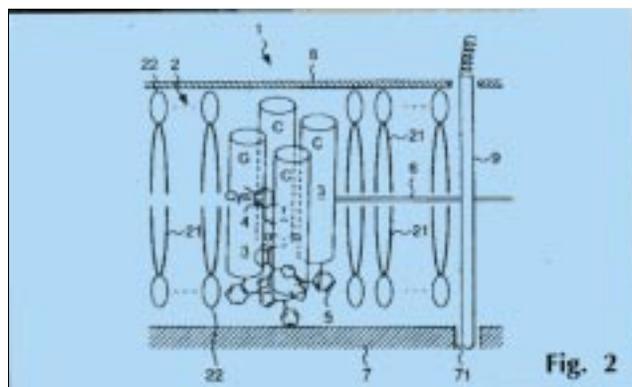
Contd from...4

Application of proteins...

made of polycrystalline silicon doped with phosphorus P, the nearest transition level to the Fermi level is less than a level of electron thermal excitation at room temperature. Accordingly, in order to generate the SET phenomena in such devices, the devices must be cooled to about 4K, resulting in an impractical operating condition. On the other hand, where the quantum dot is composed of polyacetylene, the SET phenomenon at room temperature can be theoretically generated but there is no disclosure of how to set the transistor assembly and how to make each means to be fixed.

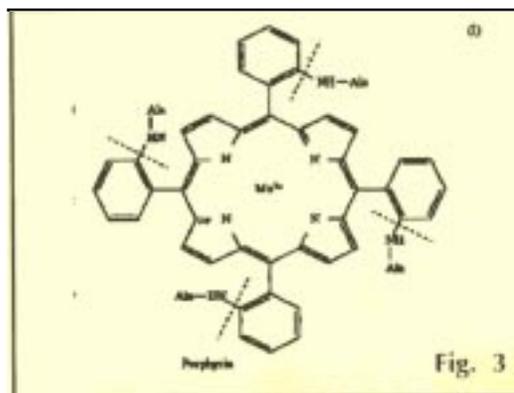
Present Invention

FIG. 2 shows the basic construction of the single electron transistor according to the present invention. The single electron transistor 1, comprises a lipid



bilayer 2 (hereinafter referred to as a LB layer), each layer of which has hydrophobic groups 21 oriented inside and hydrophilic groups 22 oriented outside; a protein material 3 arranged between each layer of the LB layer and having a alpha-helix conformation and comprising four GCCC segments of the bacteriorhodopsin; a quantum dot means 4 made of 7-acetyl-10-methyl-isoalloxazine wherein the acetyl group is combined to an S atom of a cysteine of a G segment of the protein material; a pair of electrodes 5 made of Mn.sup.3+ terrakis-tetraphenyl-porphyrin in which each ortho position of four phenyl groups is respectively combined to a corresponding alanine amino group (the end amino acid) of each segment; and a control gate 6 lying

between the opposed hydrophobic groups and made of polyacetylene. The following chemical formulas (I) and (II) respectively show the porphyrin combined to the alanine and the Flavin combined to the cysteine, wherein the dotted line is a combined portion of the alanine or cysteine.



The LB layer 2 is supported at one outer side by a substrate 7 made of carbon and at the other outer side an electric conductive layer 8 is formed. The conductive substrate 7 is provided with a through hole 71 which is used for inserting the outer terminal and must be isolated from the substrate 7.

The single electron transistor 1 can be prepared by the following steps :

Firstly, a lipid having hydrophilic groups 22 at one end is dropped and floated on the water. Into the water, the substrate 7 provided with the through hole 71 is inserted and is withdrawn from the water. As the hydrophilic groups 22 of the lipid are adhered to the surface of the substrate 7, they follow the withdrawing substrate, and thus a lipid layer is formed on the surface of the substrate 7. Then, the substrate 7 provided with the lipid layer is inserted again into the water. The hydrophobic groups of the remaining lipid are adhered to the hydrophobic groups 21 of the lipid on the substrate 7 and follow the withdrawing substrate 7 to form a LB layer having a pair of the hydrophilic group opposed together. The width of the LB layer 2 is about 5 nm, which should be controlled depending on the length of the protein by selecting the material.

Contd on...6

Patent is a territorial right specific to a country.

Contd from...5

Application of proteins...

On the other hand, there is prepared a powder of the protein which comprises GCCC segments having an alpha-helix confirmation in which Flavin is combined to a cysteine of a G segment in which the length of a G segment and the position of the cysteine can be adjusted by means of a Multiple Peptide Synthesizer. Secondly, the synthesized protein and the polyacetylene are floated on an alcohol such as ethanol and sprayed toward the LB layer 2 by means of ultrasonic vibration. They are inserted by themselves inside the LB layer 2 because of their hydrophobic characteristics. After that, a part corresponding to the through hole 71 is masked and the substrate 7 is subjected to carbon vapor deposition to form the electric conductive layer on the LB layer 2.

The thus obtained single electron transistor 1 has the protein 3 at which both ends a pair of the electrodes 5, 5 made of porphyrin are positioned to have a contact with the conductive substrate 7 and the electric conductive layer 8, which have a contact with an outer circuit to make the voltage applied between the electrodes. On the other hand, as one Flavin molecule is combined to the cysteine of the G segment of the protein 3, the conductor/one molecule/conductor can be obtained, in which the Flavin molecule acts as the quantum dot means 4 and the single electron transfer can be made through the one molecule due to

the tunneling effect. Furthermore, since the quantum dot means 4 comprises one molecule of Flavin, the nearest transition level to the Fermi level becomes higher than the thermal excitation level (25 mV) of electron at room temperature. Accordingly, the tunneling phenomena can be confirmed at room temperature.

Accordingly, as a switching function, on-off control of the current between the electrodes 5, 5 can be achieved depending on the potential of the gate 6 by means of the single electron transistor 1. Since the single electron transistor 1 can be fabricated on the order of a nanometer, super miniaturization can be realized in the electronic field.

Claims

The patent has 19 claims. A few of them are given below :

1. A single electron transistor operable at room temperature, which comprises first and second electrodes used as a source and a drain, respectively, a supporting protein material positioned between the first and second electrodes, a quantum dot means supported by the protein material, and a control gate connected to the quantum dot means, said quantum dot means being combined to at least one amino acid of the supporting protein material and being positioned between the first and second electrodes to generate tunnel phenomena.

2. The single electron transistor

Contd on...7

Domestic News

Defence Research and Development Organization (DRDO) has filed the following patent applications related to materials and food processing.

- (i) Process for high strength structural still
- (ii) Fire retardant instumescient paint
- (iii) Gelling agent for oil slicks
- (iv) Method for processing fruits

A process patent has been obtained in India by DRDO for developing a neem-based vaginal contraceptive (concept), containing NIM-76 as the active spermicidal component derived from neem oil. NIM-76 has been found to be effective in controlling fertility in experimental animals, is free from toxicity and is also capable of curing vaginal infections. The commercialization job for this contraceptive has been assigned to NRDC. The product is expected to undergo clinical trials at JSS Medical College Hospital, Mysore.

(Technology Focus, Vol 7 No 2, April 99)

To cater to the patent information needs of the engineering sector, a Value Added Patent Information Services (VAPIS) Centre has been established at National Information Centre for Machine Tools and Production Engineering (NICMAP),

Contd on...7

Incremental inventions are also patentable.

Contd from...6

Application of proteins...

according to claim 1, wherein the protein material has G, C .alpha-helix conformations of a bacteriorhodopsin which comprises a total of four segments: one is a G segment and the other three are C segments.

3. The single electron transistor according to claim 1, wherein the quantum dot means is a conductive organic compound or a liquid crystal resin.

4. The single electron transistor according to claim 1, wherein each of the first and second electrodes are an inner complex salt containing a metal ion or metal ions which are respectively combined with an end amino acid of the protein material.

5. A single electron transistor operable at room temperature, which comprises a lipid bilayer, each layer of which has hydrophobic groups oriented inside and opposed to each other, a protein material arranged in the lipid bilayer and having a segment or segments in a form of an alpha-helix conformation, a quantum dot means combined to at least one amino acid of the protein material in the lipid bilayer, first and second electrodes used as a source and a drain, and a control gate lying between the opposed hydrophobic groups and connected to the quantum dot means, wherein the quantum dot means is positioned between the first and second electrodes to generate tunnel phenomenon.

Contd from...3

A Case Law...

Hence defendant's contention about non-registration of colour of their design had no basis.

2. The rotary switches as marketed by plaintiff were in fact identical to the registered design. The Single Judge's opinion that there was a difference between the two was also erroneous.

3. The Single Judge himself was at the very first sight struck by the similarity of defendant's imitation switches with those of the plaintiff's, except the trade name SALZER and ZENITH.

4. The defendants did not produce proof of manufacture and sale of their ZENITH switches allegedly since 1965 i.e. prior to the plaintiff's sales, nor any figures of sales over any considerable period.

5. The Single Judge was not right in giving a direction to the defendants to change the colour scheme on the front square plate and thereby avoid similarity to enable the defendants to contest that there was therefore no need of interim injunction.

6. The plaintiff had made a fool-proof prima facie case. The balance of convenience was also in favour of the plaintiff. Hence, the Single Judge's common order made in exercise of his discretion in both the appeals deserved to be set aside.

Contd from...6

Domestic News

in Central Manufacturing Technology Institute (CMTI) with DSIR's assistance. The Centre provides the search facilities for the US, European and World patents, trend reports, customised search services, on-line patent search services, SDI services and other value added services

Spic Science Foundation has filed a patent for an enzyme used in the treatment of leather. The enzyme called Biodart is used to remove hair from leather. Both pollution and foul odours can be avoided using this protein.

(Business Standard, 4 May 99)

A patent granted to Standipack (P) Ltd for manufacture of pouches used for storing lubricating oils has been rejected by the High Court. Standipack had filed a suit against manufacturers of pouches such as Rollatainers Ltd, Flex Engineering and various other companies considering that their monopoly rights to manufacture pouches were being violated. After the Rollatainers Ltd along with other defendants when challenged the validity of the patent obtained by Standipack, the Court also held that the patent claimed was *prima facie* invalid as the making of pouches was already known prior to the date of patent.

(The Times of India, 1 June 99)

Contd on...8

Patent is a territorial right specific to a country.

Internet sites for Patent Search

It is said that patent documents contain description of more than 80% of man's technical knowledge. All this technical knowledge is well documented in patent specifications and is in an easily retrievable form. The obvious question one may have is how does one get access to this large pool of technical information. The information traditionally available in paper form is now also available in the form of well organised databases including computerised databases. These databases are highly user friendly and also easily navigable. Some of these databases have also been hosted for access through internet. This article gives the addresses of those internet sites which could be accessed for getting patent related information.

(1) <http://www.pk2id.delhi.nic.in>

This site is hosted by National Informatics Center (NIC), New Delhi. This site provides free on line access to INPADOC-EPIDOS database to the registered users. Registration is open to all and is free of cost. The INPADOC-EPIDOS database is produced by the European Patent Office (EPO). It is possible to conduct bibliographic searches through this site. The bibliographic data includes publication number and

date, priority number(s) and date(s), application number and date, International Patent Classification Code (IPC), name of inventor, applicant's name, title of the invention and other details. About 70% of the titles are in English, remaining 30% in 13 other languages.

This database is claimed to be the largest database on patents, dealing with patent applications filed or granted in 65 countries. The data includes patent applications filed through the Patent Cooperation Treaty (PCT), patents published by African Intellectual Property Organisation (ARIPO), European Patent Office (EPO), Organisation Africaine de Propriete Intellectuelle (OAPI) and the countries of Argentina, Austria, Australia, Belgium, Brazil, Bulgaria, Canada, Czech Republic, China, Croatia, Cuba, Cyprus, Denmark, Egypt, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Ireland, Israel, Italy, Japan, Kenya, Latvia, Lithuania, Luxembourg, Malawi, Malaysia, Malta, Mexico, Moldova, Singapore, Mongolia, Monaco, New Zealand, Netherlands, Norway, Philippines, Poland, Portugal, Rep. of Korea, Romania, Russia, Spain, Sweden, Slovenia, Slovakia, South Africa, Switzerland, Turkey, United Kingdom, U.S.S.R, U.S.A., Vietnam, Yugoslavia, Zambia and Zimbabwe.

contd on...9

Contd from...7

Domestic News

Pepsi has filed a suit against the General de Confiteria alleging violation of copyright and intellectual rights. Frito Lay India, a subsidiary of Pepsico India Holdings Ltd and Pepsi Co Inc of the US, have alleged that General De Confiteria has completely appropriated the marketing and promotional campaign involving circular discs and games played with these discs. Frito Lay was giving circular discs called Tazo along with hays and Cheetos chips and used a catchy phrase, "Lelo Lays khelo Tazo". Using the same strategy, the General de Confiteria India Ltd, manufactures of Boomer bubble gum started giving a similar circular disc called Zoomer and used a similar catchy phrase, "Lao boomer khelo Zoomer."

(Business Standard, 11 April 99)

World Copyright Day was observed on April 23. The National Book Trust and the Federation of India Publishers in Cooperation with UNESCO organized a series of events to mark the day.

(The Hindustan Times 20 April 99)

According to a Canadian non-governmental organization Rural Advancement Foundation International (RAFI), seed companies are taking an array of

Contd on...9

Incremental inventions are also patentable.

Contd from...8

Internet sites for ...

The database is being updated weekly, subject to availability of data from the member countries. Nearly 30,000 new records are added every week. Data for almost all countries are complete since 1973. Data prior to 1973 are also available in respect of some countries. **(Source : <http://www.pk2id.delhi.nic.in>, <http://www.european-patent-office.org>)**

(2) <http://www.patents.ibm.com>

The site is hosted by the IBM, and it site allows free searching and retrieval of nearly four million documents, containing patents granted and patents applications filed. The coverage includes all U.S. patents issued since 1971, PCT application data since 1997, patent applications filed at EPO (ESPAC-A) since 1979 and patents granted by EPO (ESPAC-B) since 1980. The data contains bibliographic texts, abstracts, and complete claims. The users can also view more than 40 million scanned document pages, covering U.S. Patents issued since 1974, ESPAC-A since 1979, ESPAC-B since 1980, and PCT documents since 1998, using a standard web browser. **(Source : <http://www.patents.ibm.com>)**

(3) <http://www.uspto.gov>

This is the site of the United

States Patent & Trademark Office (USPTO). Users can conduct the patent searches on patents issued by USPTO since 1976. This site provides facilities to conduct key word searches on abstracts and full texts. Searches based on specified fields are also possible. The site provides wide range information on the activities at USPTO. **(Source : <http://www.uspto.gov>)**

(4) <http://www.library.ubc.ca/patscan/>

This site provides free access to more than 1.4 million patent documents issued by Canadian Patent Office (CIPO) since 1920. Database is available in English and French. Search can be done in any field individually or simultaneously. **(Source: <http://www.library.ubc.ca/patscan/>)**

(5) <http://www.ipic.moc.go.th/search5.html>:

This is the home page of Department of Intellectual Property, Thailand. Patents granted in Thailand can be searched in Thai and English language.

(6) <http://pctgazette.wipo.int>

This is hosted by World Intellectual Property Organization (WIPO), user can search patents filed through PCT route since Jan 1998.

Contd from...8

Domestic News

patents on "traitor" technology which enables companies to insert and externally manipulate vital genetic sequences within crops and possibly livestock. This technology is being seen as more insidious than the terminator technology as a number of commercial characteristics can be loaded into the plant variety which the company can choose to either activate or de-activate at or after the point of sale depending on the farmers' ability to pay or the seller's market interest.

(Business Standard, 29 April 99)

The US has agreed to allow India the right to have discretionary powers for protecting the interests of the Indian industry while granting Exclusive Marketing Rights (EMRs) to foreign pharmaceutical and agro-chemical manufacturers. The US approval marks a significant victory for India in trade talks with America over alleged violations of World Trade Organization norms on protection of intellectual property rights by India. The discretionary powers would enable India to provide additional safeguards through amendments in its Patent Act without the possibility of being dragged to WTO's Dispute Settlement Body by the US for being unduly protectionist.

(Observer, 3 May 99)

Patent is a territorial right specific to a country.

Patent Laws in Norway

From time to time PFC has been acquainting its readers with the patent laws of different countries. This issue brings out the salient features of Norwegian Patent Act last amended by Act No. 104 of December 20, 1996.

1. Patentable Inventions

Patents shall be granted only for inventions which are new in relation to what was known before the filing date of the patent application, and which also differ essentially therefrom. Everything available to the public either in writing, in lectures, by exploitation or otherwise, shall be considered as known.

2. Non-patentable Inventions

Patents shall not be granted for:

- a) inventions the use of which would be contrary to morality or public order.
- b) Plant or animal varieties or essentially biological processes for the production of plants or animals. Patents may, however, be granted for microbiological processes and the products thereof.

The following are not considered inventions according to this Act:-

- a) discoveries, scientific theories and mathematical methods
- b) aesthetic creations
- c) schemes, rules or methods for performing mental acts, playing games or doing business, or

programs for computers

- d) presentation of information
- e) methods for surgical or therapeutic treatment or diagnostic methods, practiced on humans or animals. However, this shall not include patents for products, including substances and composition of substances for use in such methods.

3. Term of Patent

A granted patent may be maintained for upto 20 years from the date of filing of application

4. Examination and Grant

A patent for two or more mutually independent inventions may not be applied for in the same application. A patent application shall consist of the following:

- a) a description of the invention including drawings where necessary.
- b) a precise statement of the subject matter for which protection by the patent is sought (patent claims). In case of chemical compound specific use need not be included in the claim itself.
- c) an abstract of the description and patent claims.

In case of microbiological invention, a culture of the microorganism shall be deposited not later than on the date of filing the application. The applicant is required to pay the prescribed

contd on...11

International News

A Japanese patent (Pat No 1607227) has been obtained by a mechanical engineer, Shin-Ichi Matsuoka in Japan for ultrasonic welding of ceramics and metals. The ultrasonic welding can be accomplished in two ways, by joining ceramic and metal directly or by using a binder between the two. Experimental results have shown that proper joining was achieved at a pressure of 10-40 MPa in 0.2 to 2 seconds.

**(High Tech materials Alert,
Vol 16 No 4/April 99)**

A patent has been obtained by researchers at IBM for fabricating a transistor made of organic insulator. These transistors can now be fabricated at room temperature and are also compatible with plastics. An organic transistor on transparent plastic has been made which makes it especially useful for making rugged and flexible liquid crystal displays (LCDs). Such transistors also find application in LEDs, plastic memory devices and low-end devices such as ID tags and smart cards.

**(High Tech Materials Alert,
Vol 16 No 4/April 99)**

Patents have been issued in Australia and New Zealand for a novel gene that can help thwart insect pests. The patents have been obtained by researchers at

contd on...11

Incremental inventions are also patentable.

Contd from...10

Patent Laws in Norway

application fee. After the submission of observation and correction if any, if the application complies with the prescribed requirements, the applicant shall be notified that a patent may be granted. The prescribed fee for the grant has to be paid within two months from being notified. An applicant who is not resident of this country shall have a representative domiciled in this country who can represent him in all matters concerning the application.

5. Availability of Patent Documents

A patent specification shall be published by the patent office after the grant of the patent. Also, the documents shall be made available to the public even if the patent has not yet been granted, when 18 months have passed from the filing date of the application.

6. Opposition

Any person may file an opposition to a granted patent within nine months from the date of grant of the patent.

7. Right to priority

Priority for 12 months can be claimed from the date of filing for a patent in Norway for a patent, an inventor's certificate or utility model protection in a foreign country party to the Paris Convention.

8. Licensing

If the patent holder has granted someone else the right to exploit the invention commercially (licensing), the licensee may not transfer his rights to others, unless an agreement to the contrary has been made or shall be deemed to have been made.

9. Compulsory License

In case of inventions for which three years have elapsed from the grant of patent or four years from the date of filing, and the invention has not been worked, a compulsory license may be granted to anyone who wishes to work the invention in Norway. The King may, on condition of reciprocity provide that working of an invention in foreign country be considered equivalent to working in Norway. Whenever required by important public interests, anyone wishing to exploit commercially an invention for which someone else holds a patent may obtain a compulsory license to do so. In the case of semiconductor technology compulsory licences shall only be granted for public non-commercial use or to remedy practice determined after judicial or administrative process to be anti-competitive.

10. Inventions related to defence

Inventions of importance to the defence of the realm shall be governed by a separate Act.

Contd from...10

International News

the University of Melbourne. Australia's agri-industry biotechnology company Hexima Ltd has developed commercial applications of this gene. This gene could save hundreds of millions of dollars of the farmers worldwide which they spend on getting rid of the insect pests.

(WISTA Innovation, Vol 3 No 13/April 99)

China has recently acceded to the 1978 Act of the International Convention for the Protection of New Varieties of Plants (UPOV) on April 23, 1999 making it the 39th member country of the UPOV Convention. With China joining the UPOV, the new varieties of botanical genera of species from UPOV members states can be protected in China and Chinese varieties can be protected in UPOV members states.

As per the US patent statistics released in March 99 covering data upto December 98, a total of 163,147 patents were granted in 1998. The corresponding figures for 1997 and 1996 were 124,068 and 121,697. The number of plant patents for the three years were 561. The percentage of foreigners granted patents were 56, 42, and 49.

European Commission (EC) delegation to the WTO has

contd on...12

Patent is a territorial right specific to a country.

Case Law in Trademark

A case of distinctiveness and goodwill

The case being referred to in the preceding paragraphs was fought by a well known Swiss company, Ciba-Geigy and an Indian company against three Indian companies. The suit was mainly for granting of a permanent injunction restraining the defendants from using the trademark 'Ciba' or 'Cibaca' or any other trademark deceptively similar to these trademarks. Swiss company Ciba-geigy Ltd, now referred to as plaintiff No.1 is a registered proprietor of the trademarks 'Ciba', 'Cibaca' and various others having the syllable 'Ciba' for many items falling in different classes. An Indian company, now referred to as plaintiff No. 2 is a licensee and user of various trademarks owned and possessed by the plaintiff No. 1 in relation to goods manufactured in accordance with the specification provided by the first plaintiff. Both the plaintiffs extensively used the trademark Cibaca on all goods marketed by them in India. The word Ciba also formed part of the corporate name of both the plaintiffs.

The defendants 1 and 2 are carrying out business in partnership under the name M/s Bhatia Sales Corporation. Defendant No. 3, M/s Link Corporation was manufacturing filters for motor vehicles, which

were being sold by M/s Bhatia Sales Corporation under the trademark Cibaca.

In 1991 when the plaintiff learnt about the use of their mark by another party, they sent a letter to the defendants telling them to stop the use of the trademark Cibaca. The defendants even after verifying the registration of the plaintiffs' trademark considered their using the trademark as bonafide and did not stop using the word Cibaca on their automobile filters.

The plaintiffs alleged that the defendants had deliberately and fraudulently chosen plaintiffs' trademark in order to trade upon the reputation of the plaintiff and to pass off their filters as the goods of the plaintiffs. Hence, they filed the present suit for a decree for permanent injunction, alongwith an application for grant of ad interim injunction. On the said application, an *ex parte* ad interim injunction was issued on 9 March, 1994 which restrained the defendants from using the trademark Cibaca on the goods manufactured by them. The defendants then filed a common statement, contesting the suit, on the pleas:

(i) that the defendants have been using the trademark 'Cibaca' in respect of the filters for use in automobiles since 1987 and the said goods bear no resemblance to the goods being sold by the plaintiffs. Thus, there is no

contd on...13

Contd from...11

International News

requested consultation with the Government of Canada regarding the protection of inventions in the area of pharmaceuticals under the Canadian Patent Act as EC feels that the Canadian Act does not provide full protection to the pharmaceutical patents for the entire period of 20 years. Following the EC's communique, the United States, Switzerland and Australia have all indicated a desire to participate in the consultation with the Canadian government.

(WISTA Intellectual Property, Vol 2 No 14, May 99)

According to World Intellectual Property Organisation (WIPO), international applications for patents rose by 23.1 percent in 1998, with 67,007 applications filed last year. Americans have filed the highest number of applications (28,356) which constitute 42.3 percent of the total filing. The US is followed by Germany, Japan, Britain and France.

(Patent World, Iss. III, Apr 99)

As per the Intellectual Property Laws Amendment Act 1998 of Australia, the term of pharmaceutical patents has been extended in Australia. The salient features of the amendment are given below :

* Extension of up to five years beyond the normal 20 year term are available for eligible

contd on...13

Incremental inventions are also patentable.

Contd from...12

Case law in Trademark

question of any deception or confusion in the minds of the public;

(ii) the turnover of the defendants in the said goods under the trademark 'Cibaca' run into lacs of rupees and thus, the mark 'Cibaca' is associated by the public at large with the goods of defendants only and thus, there is no question of defendants passing off their goods as the goods of the plaintiffs.

(iii) the defendants had adopted the trademark 'Cibaca' in 1987 knowing fully well that it was not being used by anyone in respect of automobile filters. Since then they have been using it without any interruption from anywhere. They have also produced affidavits of some of their dealers, inter alia, affirming that their concerns have been purchasing filters under the trademark 'Cibaca' from the defendants.

(iv) moreover, there is inordinate delay on the part of the plaintiffs in initiating action against the defendants for perpetual injunction so plaintiffs are not entitled to any relief in the suit.

Keeping aside the pleas of the defendants, it was noticed that the word 'Ciba' forms an important part of the corporate names of both the plaintiffs and with the passage of time and the reputation acquired, the mark 'Cibaca' has become a household word. The products manufactured

by the plaintiffs are of national and international repute and standard. Their sales figures for the years 1984-85 to 1989-90 which range from 1, 1 5,09 lacs to Rs. 2,55,48 lakhs also reflect the amount of business carried out by the plaintiffs. They have also spent lacs of rupees on advertising their goods. On the other hand the defendants have not given their sale figures in the written statement except for a vague statement that their sales figures run into lacs of rupees. It is significant to note that though copies of number of invoices have been placed on record by the defendant starting from November, 1987 but the earliest invoices depicting the trademark "Cibaca' are of December, 1990, thus belying the stand of the defendants that they have been using the said trademark since June, 1987.

Considering the pleas of both the parties it was held by the Court that the plaintiffs have brought sufficient evidence on record to show that they have not only acquired distinctiveness and goodwill in the word 'Ciba' but even in the word 'Cibaca'. The mark 'Cibaca' connotes distinctiveness, reputation, quality and goodwill acquired by the plaintiffs over a number of years and is understood by a common man as associated with the plaintiffs. It may also be noted the defendants have not even attempted to explain as to why they happened to hit upon the

contd on...14

Contd from...12

International News

pharmaceutical patents.

* The patent must contain at least one claim covering the pharmaceutical substance *per se*, and the substance must be included in the Australian Register of Therapeutic Goods (the ARTG).

* The transitional provisions allow for an extension of term application for an eligible pharmaceutical patent to be made within six months after the latest of the following; the date the patent was granted; the date of commencement of the first inclusion in the ARTG, but which can be extended by taking advantage of the transitional provisions if the extension of term application is filed by July 27, 1999.

* There is an obligation under Section 76 A of the Act following grant of the extension of term to furnish data detailing the amount and origin of any Commonwealth funds, and the total amount spent on each type of research and development (occurring in Australia), in relation to the pharmaceutical substance.

* The Act includes spring boarding provisions permitting manufactures of generic drugs to undertake activities, during the extended term, in relation to the pharmaceutical substance for the purpose of meeting pre-marketing

contd on...14

Patent is a territorial right specific to a country.

Contd from...13

Case law in Trademark

word 'Cibaca'.

Thereafter, a decree for permanent injunction was passed in favour of the plaintiffs and against the defendants, restraining the defendants from using the trademark 'Cibaca' or any other trademark containing the word 'Ciba' or the word 'Cibaca' or any other trademark deceptively similar to the trade marks 'Ciba' or 'Cibaca'. While giving the decision the Court held :

"It is well-settled that in a passing off action a tort to protect commercial goodwill and to ensure that business reputation of a person is not exploited, the plaintiff has to establish that his business or goods have acquired the reputation he is claiming by showing that his trade name has become distinctive of his goods and the purchasing public at large associates the plaintiff's name with them. But the plaintiff is not required to establish fraudulent intention on the part of the defendant. Even causing of actual confusion amongst the customers is also not to be proved by the plaintiff, what it is required to establish is the likelihood of deception or confusion in the minds of the public at large. The likelihood or probability of deception depends on a number of factors, which necessarily is a question of fact in the circumstances of each case. It is true that where two trades are not closely related and the goods are

also not analogous, the risk of confusion or deception is far less as compared to a case where the plaintiff and the defendant have a common field of activity but at the same time it cannot be gainsaid that in a case involving non-competing goods, there is never a possibility of any confusion in the minds of a customer and, therefore, in such cases there is no question of passing off. There have been a catena of decisions wherein the right to use an established trade mark in respect of certain classes of goods has been held to extend to goods of a very different nature from the goods sold by the proprietor of the trademark. For instance in Daimler Benz Aktiengesellschaft and Another v. Hybo Hindustan, AIR 1994 Delhi 239, the two products involved were the cars and the undergarments but the defendant was enjoined from carrying on trade in any undergarments in the name of "Benz" and "three pointed Human beings in a Ring". It was held that the trade mark law is not intended to protect a person who deliberately sets out to take the benefit of somebody else's reputation with reference to goods, especially so when the reputation extends world wide. It was observed that "Benz" as name of a car would be known to every family that has ever used a quality car; the said name as applied to a car has a unique place in the world and thus the defendants boxes, in which it was

Contd on...15

Contd from...13

International News

regulatory approval requirements.

* Non-infringement provisions permit exploitation of forms of the invention that are not pharmaceutical substances or are not for a therapeutic use.

* An application for an extension of the term of an eligible pharmaceutical patent must be made during the term of the patent and within six months of the latest of the following dates :

(i) the date the patent was granted or

(ii) the date of first inclusion in the Australian Register of Therapeutic Goods of goods that contain or consist of the pharmaceutical substance.

(Patent World, Iss. III, Apr 99)

In response to the European Commission's recently published Green Paper on Combating Piracy and Counterfeiting in the Single Market the trade organisations representing software (BSA), music (IFPI), films (MPA) video (IVF) and leisure software (ISEF) have tabled a four point action plan aimed at mobilising the European Union in a unified offensive against piracy. The plan was discussed at a hearing of EU aiming at expanding the EU's role in fighting piracy.

(Copyright World, Iss. 89, Apr 99)

Contd on...15

Incremental inventions are also patentable.

PFC on the move...

1. The PFC conducted its 50th patent & IPR awareness workshop at Lucknow on 3rd May, which was organised in association with the Council of Science & Technology, UP, Lucknow. The workshop was inaugurated by the Minister S&T, State Government of UP and was attended by the Chief Secretary and other senior government officials, a number of academicians, including Vice Chancellors, from various universities located in UP, scientists from CSIR laboratories, representatives from industry and press. The total participation was about 150.

A new enthusiasm was noted and requests were made to PFC to hold more such workshops in the state of Uttar Pradesh.



Patent awareness workshop held at Lucknow
on 3rd May, 1999

2. Eight patent applications were filed in India during April-June, 1999. With these, the PFC has so far facilitated filing of 60 patent applications, including 13 applications filed abroad.

3. A memorandum of understanding (MoU) has been signed with Confederation of Indian Industry (CII) whereby PFC would provide advisory services to CII in matters related to setting up of Patent Search Facility, besides jointly organizing patent and IPR awareness workshops for the Indian industry.

contd from...15

Case law in Trademark

selling undergarments, showing thereon a man with his legs separately and hands joined together above his shoulders, all within a circle indicate the strong suggestion of the link between the three pointed stars of "Mercedes Benz" car and the undergarments sold by the defendant of the

abovesaid symbol. It was further held that none should be continued to be allowed to use a world famous name to goods which have no connection with the type of goods which have generated world wide reputation."

Patent is a territorial right specific to a country.

Contd from...14

International News

The International Intellectual Property Alliance (IIPA) has announced that United States copyright industries lost an estimated \$12.4 billion dollars due to copyright piracy in 62 countries in 1998. As part of the same report, addressed to the United States Trade Representative, the Interactive Digital Software Association (IDSA) announced that American computer video game publishers lost an estimated \$3.2 billion worldwide in the same year.

(Copyright World, Iss. 90, May 99)

Five music production companies, BMG Entertainment, EMI Music, Sony Music Entertainment, Universal Music Group and Warner Music Group have given their approval to a new method of protecting copyright material on digital versatile discs (DVDs) developed by four electronics companies IBM, Intel, Panasonic and Toshiba. This will now allow content owners to set various levels of copy protection on the DVDs they distribute. IBM has also teamed up with four technology firms to try and safeguard digital films and video against piracy. The so-called Galaxy Group, which comprises IBM, Hitachi, NEC Pioneer and Sony, has announced that it will work to use electronic watermarking to secure these digital media. The Group will first apply the technology to DVDs.

contd on...16

Indian Patent Databases



ing Databases on Indian patents are available with Patent Facilitating Cell on the CDROM discs. The databases are user friendly and equipped with latest search tools and logical operations.

iswa-A : Patent applications filed in India as published in the issues of the

Gazette of India (Part III, Section 2) from January 1995 onwards

(Classification has been done in this database into fields such as D-Drugs, C-Chemicals, Ele-Electrics, Elo-Electronics, Mat-Materials, Mech-Mechanical and G-General for users' convenience)

Ekaswa-B : Patent applications notified for opposition in the Gazette of India (Part III, Section 2) published from January 1995 onwards

Cost of Individual CD : Rs 500/- (Five hundred only)

Annual Membership Scheme : Rs. 3500/- (4 CDs of each database in a year; you will receive 8 CDs in all)

Please make the payment in advance through a demand draft drawn in favour of TIFAC, New Delhi.

Patents for Opposition

The number of applications published in the Gazette of India and notified for Opposition has increased considerably in last few months. Therefore, we are incorporating a supplement covering the Gazette of India from March 6 to May 29, 1999.

Contd from...15

International News

and later use it on digital broadcasts and networks that electronically distribute content.

(Copyright World, Iss. 89, Apr 99)

A new private company Imprimator Services Ltd has been formed to continue the work of the European Commission backed IMPRIMATUR project. The project aims to find a response to the problems facing intellectual property rights in the digital era. The project is a joint venture between five companies: the MCPS/PRS Alliance; Telia AB, the Swedish Telecommunications Company ALCS Ltd, the UK text authors' rights society; Croft Research and Development Ltd, a technology company specialising in digital watermarking and Clipet Ltd, specialising in methodology. The company intends to work in alliance with other organisations to promote understanding and dialogue about methods protecting intellectual property such as digital watermarking and encryption.

Please send us questions and topics you would like to see in the coming issues

NEXT ISSUE

- Case Study
- Case Law
- Patents for Opposition

Published by: Patent Facilitating Cell (PFC)

Technology Information, Forecasting and Assessment Council (TIFAC)
Department of Science and Technology (DST),
Technology Bhavan, New Mehrauli Road, New Delhi - 110 016.
Tel.: 6859581, 6863877, 6967458, 6567373 Fax: 6863866
e-mail: tifac@nda.vsnl.net.in

Adviser: Y.S. Rajan, Executive Director, TIFAC

Editor: R. Saha, Director

Typeset & Printed by Reliant Print O Graphics, New Delhi-110 020
Ph. : 692 4567, 692 9593 Telefax: 91-11-692 9593

Incremental inventions are also patentable.