

FORM – 3 A
THE PATENTS ACT, 1970

COMPLETE
SPECIFICATION

SECTION 10

TITLE : AN IMPROVED LASER MARKING & ENGRAVING
MACHINE.

APPLICANTS : BHARAT BHOGILAL PATEL,
1/41 Juhu Gold Mist,
Juhu Gulmohar Road,
J.V.P.D. Scheme,
Vileparle (W),
Mumbai : 400 049.
Maharashtra,
India.

The following Specification particularly describes and ascertains the nature of this invention and the manner in which it is to be performed:

611/80M/1998

RMID-2

DUPL

As Accepted

(19)



THE PATENT OFFICE
2nd M.S.O.BUILDING,
234,ACHARYA JAGADISH CHANDRA BOSE ROAD,
CALCUTTA - 700 020

INDIAN PATENT SPECIFICATION

(51) Int. Cl : H 01 S 3/00 B 23 K 26/18	A	(11) Document No. IN 188787
(52) Ind. Cl : 154 C [XXX VII (1)]		Date of Document : 21-09-1998 (42) Date of Publication : 9-11-2002
(21) Application No. 611 BOM 1998	A	(71) Applicant : 1) BHARAT BHOGILAL PATEL, 1/41, JUHU GOLD MIST, JUHU GULMOHAR ROAD, J.V.P.D. SCHEME, VILEPARLE (W), MUMBAI : 400 049. MAHARASHTRA, INDIA.
(22) Date of Filing 21-09-1998		(72) Inventor : - IDEM - (74) Agent : CHANDRAKANT M. JOSHI. Examiner: DR. B. K. SINGH
Claims: 5 Text : 10 Pages; Drgs 2 sheets		

(54) Title : AN IMPROVED LASER MARKING & ENGRAVING MACHINE.

(57) Abstract : A laser marking & engraving machine consisting of the laser head comprising of head, mirror mount to mount the mirror, Q-switch to mount the Q-switch for apparatusive mount to regulate the apparatus so as to vary the intensity of the Laser Beam,. Which is further provided with a beam bender got positioning the beam in a required direction which is supported in a rail & connected to a control Panel provided with power supply, RF Driver, Heat Exchanger, Chiller to generate a laser beam of required intensity for marking/etching, engraving, scrubbing, cutting as per the required design programmable through a computer on metals and non metals through beam steared galvo's and flat field galvo's/scanning heads.

PRICE : THIRTY RUPEES

RMID.-2

A LASER MARKING & ENGRAVING MACHINE

The invention relates to a laser marking & engraving machine. More particularly the invention relates to marking & engraving on metals and non-metals by use of Laser Beam Technology.

Conventionally these work was carried out by printing & then etching by means of mechanical as well as chemical means. The prior process of printing of required design on the object itself is a lengthy process such as making of a artwork, making of pattern, drawings, logos, symbols which is then photographed and developed to get a positive and negatives then the master copy is prepared and alternatively printing with a acid resistive ink and subsequently the etching process. The prior process has got its limitations for the Finner works & on the shape of the object and all types of metals can not be etched with this process. Apart from the difficulty in printing on the substance the process of etching is also a tedious. Conventionally as all metals are not easily dissolve by the acid treatment. The process itself is a tedious, lengthy and hence costly. To develop a intricate design on some metals or non-metals where the precision is of the prime need or the substance itself is very costly or the shape of the object is such (round or cylindrical) it is difficult to have a proper marking/etching effect in the prior process.

Due to high manufacturing and disposal cost of the inkjet markers &

environmental concerns make acid etching chemistry too costly. Due to the cost in creating, storing, & replacing stencils or to avoid multi-step process the inventor has done lot of research on a laser marking & engraving machine & came up with a unique laser marking system which can provide with a unique combination of speed, performance, especially imaging properties & a benefit of computer control which can lead to a clean, simple to use, one step process for making virtually any text or graphic image on almost any metals or non-metallic materials.

OBJECT OF THE INVENTION:

1. The primary object of the invention is to provide a laser marking & engraving machine which gives improved marking quality.
2. The another object of the invention is to provide a laser marking & engraving machine to reduce the maintenance cost.
3. The further object of the invention is to provide a laser marking & engraving machine which eliminates secondary processes.
4. A still further object of the invention is to provide a laser marking & engraving machine which is safe, easy to handle, economic.
5. Still further object of the invention is to provide a laser marking & engraving machine which has traceability to identify

through monograms, logos Batchnumber, Barcode, Codenumber & pilferproof marking on the substance through this technology.

6. Still further object of the invention is to provide such an improved machine where the marking is pilferproof which is universally acclaimed for laser marking on the substance itself for export purposes.

Accordingly there is provided a laser marking & engraving machine consisting of a laser head consisting of a head, mirror mount, apparatus mount, beam bender, rail, through power supply, RF Driver, heat exchanger & chiller to generate a laser beam connected with a programmable computer system to generate the laser beam for marking & engraving the required design on the substance.

The instrument is further provided with mirror mount for the mounting of plurality of mirrors. Q-switch mount for Q-switch. Aperture mount for aperture. Head which is got gold cavities, lamps source (co and Nd: VAG) & etc.

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The system is connected by the electronic circuit through a power supply. The description will now be claimed from the following figure 1,2,3 in the accompanying specification.

Fig. 1 is a schematic diagram of a laser marking machine.

Fig. 2 is a sectional elevation of laser head.

Fig. 3 is a sectional elevation of Galvo's.

Referring to Fig. 1 to 3 the power supply (1) main is connected to stabilizer (2) in series which is connected to the computer (3) through a control panel in series which gives input to the Galvo steered beams (5) through a RF driver; input from control panel (4) generate laser beam on the laser head (7) which is used through a galvo's consisting of beam steered galvo & flat field galvo which rotates the beam as per the required design/markings. The substance is kept below the galvo. On some table (8) which is adjustable for focusing the length of the beam. The apparatus is further provided with a chiller for chilling primary circuits in the laser head as well as deionised water cooling for the laser head internally as well as externally. The object is placed on the table then focal point is adjusted to get the right beam spot size on the object. Then a program is being load on the computer and frequency are being set on the computer for desired result. Once the setup is ready we only adjust power according to the dept required. Then the command is given on the computer for marking on the object through the galvo's by laser beam.

Galvo's provided with frequency generator laser scanning lenses the frequency lenses can be design as per laser marking required by the customer.

F-Theta lenses have been designed for Laser Marking, Engraving, Printing, Graphic Art, Mirco-machining, Trimming, Guaging, and Surface Cleaning. These High Quality Air-Spaced F-Theta Lenses are designed to provide diffraction limited performance and low F-Theta distortion.

A table showing the spot size according to area is given as under.

Wavelength (nm)	Focal Length (mm)	Scan Area (mm)	Spot Size (um)
1064	56	20 x 20	5
1064	80	56 x 56	15
1064	100	60 x 60	14
1064	100	60 x 60	14
1064	100	60 x 60	12
1064	125	64 x 64	12
1064	125	64 x 64	12
1064	160	98 x 98	25
1064	160	98 x 98	25
1064	160	100 x 100	23
1064	160	110 x 110	23
1064	163	110 x 110	31
1064	163	100 x 100	31
1064	163	100 x 100	18
1064	164	100 x 100	29
1064	164	100 x 100	29
1064	181	72 x 72	24
1064	181	72 x 72	24
1064	235	106 x 106	31
1064	235	106 x 106	31
1064	240	168 x 168	30
1064	240	168 x 168	30
1064	254	160 x 160	22
1064	254	160 x 160	22
1064	295	254 x 254	30
1064	300	212 x 212	30
1064	300	212 x 212	30
1064	300	212 x 212	20
1064	330	225 x 225	40
1064	330	225 x 225	40
1064	350	220 x 220	33
1064	410	250 x 250	34
1064	420	285 x 285	50
1064	420	285 x 285	50

RMD-2

1064	810	500 x 500	55
820	401	220 x 220	25
780	88	40 x 40	8
780	296	180 x 180	30
780	508	330 x 330	22
633/670	88	40 x 40	8
633/670	156	70 x 70	32
633/670	156	70 x 70	12
633	105	30 x 30	9
633	155	70 x 70	13
532	56	18 x 18	6
532	100	50 x 50	10
532	94	55 x 55	10
532	94	55 x 55	10
532	102	53 x 53	7
532	102	53 x 53	7
532	159	100 x 100	14
532	159	100 x 100	14
532	163	80 x 80	20
532	254	150 x 150	18
532	250	150 x 150	11
532	300	175 x 175	18
532	410	225 x 225	30
532	508	350 x 350	15
532	810	500 x 500	30
488	508	330 x 330	22
355	254	100 x 100	21
355	810	400 x 400	30
308	254	100 x 100	21
10600	120	76 x 76	250
10600	157	100 x 100	325

The power ranging to 10 watts to 200 watts for different types of heads are available for different types of markings to get generated at different speeds. Laser lamps and rods & source of generating LASER are provided as per the design of the head use for manufacturing of the lasers.

In many cases there are several laser lamps available for any given laser type. Laser lamps will provide, were possible, the lamps from the manufacturer of your choice. Laser lamps are continuously being improved so that all times provide the laser

lamps best suited for a given laser system and application. There are thousands of laser lamps that can readily be provided. Our extensive cross-reference list should identify the compatible laser lamp model number.

Thus the apparatus has got a versatile application in the field of metal, ceramic, plastic, jewellery, orthopedic, medical, pilferproof, optical industries, & high precision tools & equipment manufacturing.

The unique marking device by the laser technology which has a very wide range of application is generating very good demand in local as well as the market abroad. The inventor has done a lot of research to improve upon the machine as well as the marking technology. Several modifications by changing the galvo's, scanning head, Q-switch, mirror, beam benders are possible on different types of materials for marking/engraving as well as designing. By deep engraving, cutting of material is also possible by a multi pass means of working.

The machine is user's friendly does not require any great skill for handling the job. This is an embodiment several modifications are possible which may be considered with the spirit & ambit of this invention.

RMID-2

I CLAIM :-

1. A laser marking & engraving machine consisting of the laser head comprising of head, mirror mount to mount the mirror, Q-switch to mount the Q-switch, Aperture mount to regulate the aperture so as to vary the intensity of the Laser Beam, which is further provided with a beam bender for positioning the beam in a required direction which is supported in a rail & connected to a control panel provided with power supply, RF Driver, Heat Exchanger, Chiller to generate a laser beam of required intensity for marking/etching, engraving, scrubbing, cutting as per the required design programmable through a computer on metals & non-metals through beam steared galvo's & flat field galvo's/scanning heads.

2. A laser marking & engraving machine as claimed in claim 1 wherein the machine is connected through electronic circuit consisting of main (1) which is connected through the programmable computer (3) through stabilizer (2) in series. Another phase from the main is supplied to the laser head. through a chiller, the input of a computer (3) is provided to scanning head (5) through a RF Driver (6) for directing the laser beam on required area on the object place on the table (8).

3. A laser marking & engraving machine wherein the laser head is

provided with adjustable rods & lamps & other source of various sizes can be provided on the laser heads for handling different types of materials where the hardness of the material is vastly differs.

4. A laser marking & engraving machine as claimed in claim 1 wherein the machine can be provided with different power supply as per the need of different industries which may be range from 10watt to 200 watts (out put power).
5. A laser marking & engraving machine as claimed in claim 1, and substantially herein described & illustrated in FIG. 1 to 3 in the accompanying specification.

Dated on 14th September, 1998.



CHANDRAKANT M. JOSHI
AGENT FOR
BHARAT BHOGILAL PATEL

RMID-2



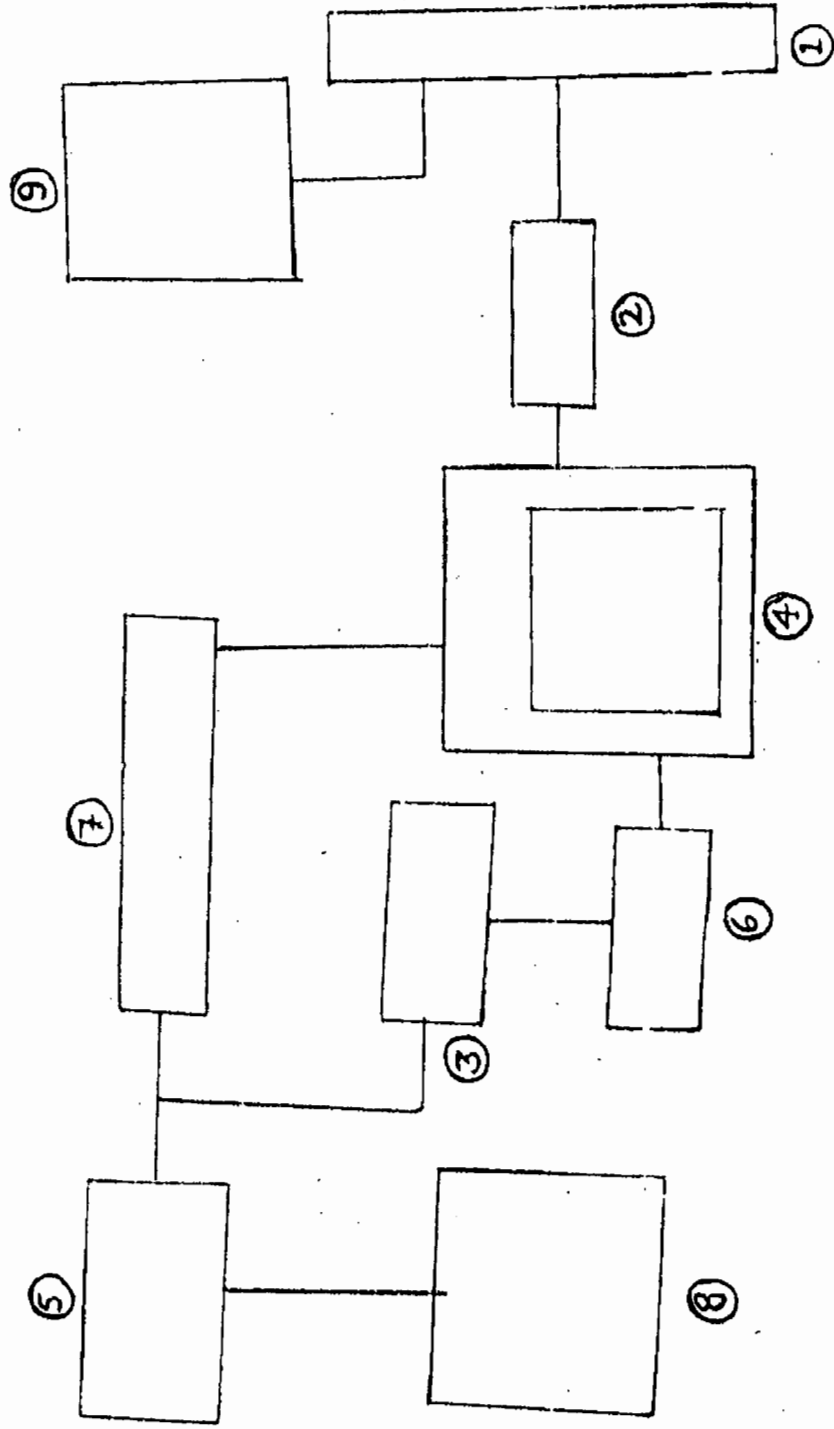
ABSTRACT

A laser marking & engraving machine consisting of the laser head comprising of head, mirror mount to mount the mirror, Q-switch to mount the Q-switch for apporative mount to regulate the apparatus so as to vary the intensity of the Laser Beam, which is further provided with a beam bender for positioning the beam in a required direction which is supported in a rail & connected to a control panel provided with power supply, RF Driver, Heat Exchanger, Chiller to generate a laser beam of required intensity for marking/etching, engraving, scrubbing, cutting as per the required design programmable through a computer on metals & non-metals through beam steared galvo's & flat field galvo's/scanning heads.

RMID-2

NAME OF APPLICANT : BHARAT BHOGILAL PATEL
APPLICATION NO. : 611 / BOM/98

NO OF SHEETS : 2
SHEET NO. : 1



21 SEP 1998

FIG.1

CHANDRAKANT M. JOSHI
AGENT FOR
BHARAT BHOGILAL PATEL

RMD-2

NAME OF APPLICANT : BHARAT BHOGILAL PATEL
APPLICATION NO. : 611 BOM/98

NO OF SHEETS : 2
SHEET NO. : 2

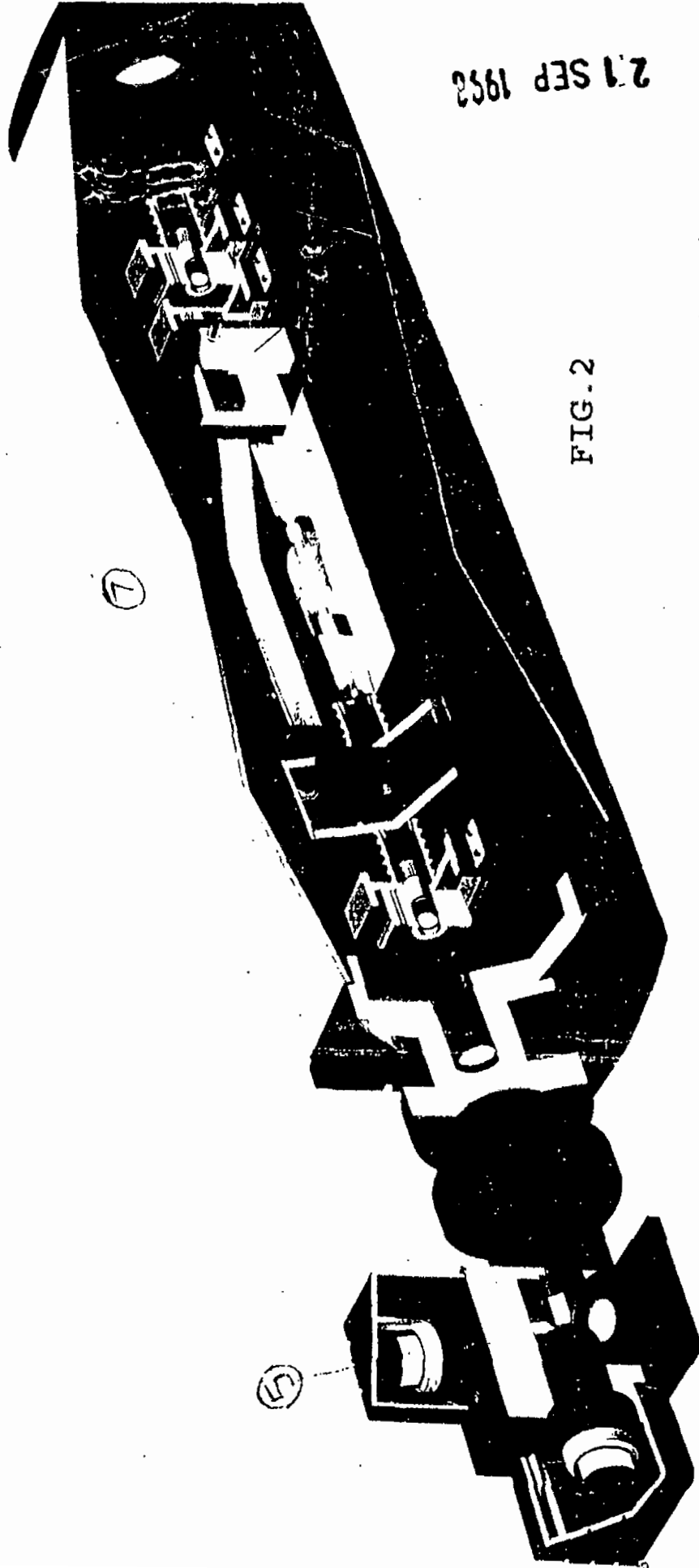


FIG. 2

FIG. 3

RMID - 2

21 SEP 1952

CHANDRAKANT M. JOSHI
AGENT FOR
BHARAT BHOGILAL PATEL

CHANDRAKANT M. JOSHI
INDIAN PATENT ATTORNEYS



PT/8249

PATENT & TRADE MARK ATTORNEYS
MEMBER: INTERNATIONAL BAR ASSOCIATION

501, Vishwa Nanak, Chakala Road,
Andheri (East), Mumbai-400 099.

Tel. : 838 - 0848, 820-5425, 838-9839
Fax: (022) 838-0737, (022) 806-6294

The Controller of Patents & Designs,
Mumbai.

Dear Sirs,

Subject : Patent Registration Application

Invention : AN IMPROVED ENGRAVING AND
MARKING MACHINE WITH LASER
TECHNOLOGY

Applicant : BHARAT BHOGILAL PATEL



Under the instruction of our client, we are forwarding herewith application for Patent registration with enclosures. We request you to Patent the invention under the Patent Act 1970.

1. Form No. 1 in Triplicate.
2. Complete Specification in quadruplicate with drawings.
3. Form No 6.
4. Letter Of Authority in form GP .
5. Requisite Fee

Thanking you,

Yours truly,

CHANDRAKANT M. JOSHI
PATENT & TRADE MARK ATTORNEYS.

RMID - 2

(2)

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**GOVERNMENT OF INDIA
PATENT OFFICE BRANCH
TODI ESTATES, IIIRD FLOOR,
SUN MILL COMPOUND, LOWER PAREL(WEST),
MUMBAI-400 013**

Tel. No. : 492 4058
492 5092
496 1370
Telegram : PATOFFICE
Fax No. : 495 0622

No. 611 Bam 98
1# 1

To, Chandrakant m Joshi
Patent & Trade mark Attorneys.
501, Vishveshwarai, Chakala Rd
Andheri (E), Mumbai - 99

Date: 3/4/01

Sub : Preliminary Examination Report of Application No. 611/Bam/98

[Please note that this is NOT a First Examination Report u/s 12 of The Patents Act, 1970]

Sir/Madam,

The following requirements marked ✓ are to be complied with within 15 days from receipt of this letter.

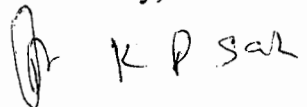
- 1) One/Two copies of Application/Provisional Specification/Complete Specification should be filed.
- 2) The drawings referred to in the specification should be prepared in accordance with the instructions contained in Rules 16 to 19 of the Patents Rules, 1972 (as amended in 1999) and filed in Triplicate.
- 3) The proof of title/right to make this application should be filed.
- 4) The proof of right to make the application has not been filed within the stipulated period of 3 months u/r 11 of the Patents Rules, 1972 therefore, a petition u/r 124 requesting the Controller for extending the said time limit should be filed.
- 5) Power of Attorney in your favour should be produced.
- 6) The complete specification filed by you does not contain any claim/meaning full claims. You may therefore request the Controller of Patents to treat your complete specification as provisional specification U/S 9(3) and file the complete specification within the stipulated time U/S 9(1) along with declaration of inventorship (Form -5).

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- 7) Declaration of Inventorship (Form-5/6) has not filed along with complete specification.
- 8) You have intimated about the change in Name/address/address for service/corrections in the specification which will be considered only after your filing a request in the prescribed manner on Form-13 with prescribed fee, U/S 57 of the Act.
- 9) For mentioning the name of inventor on the specification, you are required to file a request in the prescribed manner on Form-8 with prescribed fee, U/S 28 of the Act.
- 10) For the change of applicant, you are required to file a request in the prescribed manner on Form-6 with prescribed fee, U/S 20 of the Act.
- 11) Your request on Form-6/10 has been allowed and therefore, you should file an application and other documents in the name of claimant in triplicate.
- 12) The certified copy of the priority (convention) application should be filed.
- 13) A statement and undertaking regarding the application filed outside India on Form 3 as required under sub-section (8) (1) of the Act should be filed.
- 14) Petition u/r 123/124 should be filed for taking the particulars of corresponding foreign applications filed, on record.
- 15) Details regarding the search and/or examination report in respect of the applications filed outside India, as provided under Section 8 (2) of the Act, 1970 should be filed.
- 16) A copy of the Patent, as accepted in a country outside India should be submitted.
- 17) An abstract of the invention limited to 200 words should be filed.
- 18) *If you intend to file your above said application U/S 5(2) of the Act, please intimate immediately to this office accordingly.*

If no response is received within 15 days from the date of the report, it will be presumed that the applicant are no longer interested to proceed further with the application and no further action on the said application will be taken by the Office.

Yours faithfully,



EXAMINER OF PATENTS & DESIGNS

RMID-2

1. Claims falls within the scope of sub clause of Section 3 (d) of Patents Act, 1970.
2. Claims ~~does~~ not sufficiently define ~~in~~ the invention,
3. Claims are not clear in respect of where indicated therein.
- ~~4.~~ The Title in Application and Specification should be made consistent with the opening paragraph of description and the statement of claims.
- ~~5.~~ Distinguishing features as compared with prior art to be pinpointed clearly.
- ~~6.~~ Application should be corrected as indicated therein.
- ~~7.~~ State of origin should be mentioned in Application and Complete Specification.
- ~~8.~~ Details regarding the search and/or examination report in respect of the same or substantially the same invention filed in any country outside India and any amendment effected in the specification including claims should be submitted immediately as provided under Section 8(2) of the Patents Act, 1970
- ~~9.~~ Patent Application No. should be marked in the drawing sheet.
10. If any corrections are made in any page of the Specification that page should be freshly typed and files in Triplicate as otherwise the corrections, revisions and excisions made may appear in the photo copies of the specification supplied by the office. The original page should be returned to this office m duly cancelled over your signature.
11. If you desire to proceed with this application the requirements mentioned above should be complied with and the documents returned herewith should be resubmitted immediately so as to enable this office for taking necessary action

(3)

**GOVERNMENT OF INDIA
PATENT OFFICE BRANCH
TODI ESTATES, IIIRD FLOOR
SUN MILL COMPOUND, LOWER PAREL (WEST),
MUMBAI-400 013.**

Tel. No.4924058

4925092

4961370

Fax No.4950622

E-Mail:patnum@vsnl.net

Date:

19 OCT 2001

5244
No. 611/BOM/1998

To,
CHANDRAKANT M. JOSHI,
PATENT & TRADE MARK ATTORNEYS,
501, "VISHWANANAK", CHAKALA ROAD,
ANDHERI (EAST),
MUMBAI : 400 099.

Sub : Patent Application No.611/BOM/1998
By BHARAT BHOGILAL PATEL

An examination of the above quoted application made under Section 12 of the Patents Act, 1970 (as amended in 1999) discloses the defects as mentioned on the reverse.

The documents noted in the margin are enclosed herewith for amendment in those respects and should be returned to this office at an early date, together with any observations that you would like to offer in connection therewith.

The application referred to will be deemed to have been abandoned unless all the requirements imposed by the said Act and the Patents Rules,1972(as amended in 1999) are complied with within fifteen months from the date of this statement. The said period of fifteen months can be extended up to eighteen months by making an application on Form 4 with the prescribed fee of Rs.250/- or Rs.1000/- per month (Rs.250/- for individual and Rs.1000/- for legal entities). Such extension of time for one, two or three months should be taken before the expiry of the said normal period of fifteen months. Further, it is pointed out that such extension of time can be granted only once.

ALLG
18/10/2001
(DR. B. K. SINGH)

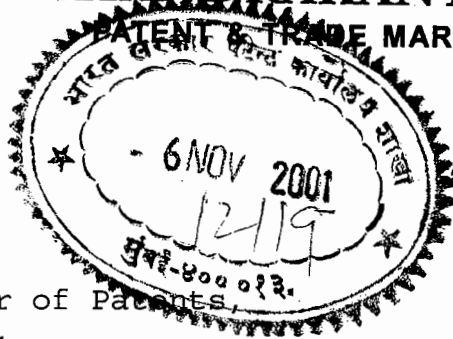
Examiner of Patents and Designs
For Dy./Asstt. Controller of Patents and Designs

- Encl: 1. Application on Form- 1/1A/2/2A
2. ~~Provisional and/or Complete Specification~~
3. ~~Provisional Drawings and/or Complete Drawings.~~
4. Form-3
5. Form-5
6. Power of Attorney. o/c
A/cil

Note: All communications to be sent to the Controller of Patents at the above address

RMID-2
RMID-2

CHANDRAKANT M. JOSHI



PTN/8249
05/11/2001

To,
The Controller of Patents,
Patent Office,
Mumbai.

Dear Sirs,

**Sub : Patent Application No. 611/BOM/1998
by BHARAT BHOGILAL PATEL**

Please refer to your letter no. 611/BOM/1998/8249 dated 19/10/2001 wherein a set of objection was raised. We now give our observation as under ;

Referring to para 1, the invention is new and useful. This is an improvement over the existing systems.

Referring to para 2, the claims has been rewarded to make the invention clear.

Referring to para 3, the claim 2 has been rewarded to make the claim in a single sentence.

Referring to para 4, the title has been made consistent in application and specification.

Referring to para 5, distinguishing features has compared to prior art has been given in page 2 & 3.

Referring to para 6, application has been corrected as indicated.

Referring to para 7, state of origin has been mentioned in application and complete specification.

Referring to para 8, the same application has not been filed in any Foreign Countries the objection is therefore be waved.

Referring to para 9, Patent application number has been marked in each drawing sheets.

Referring to para 10, freshly typed page along with cancelled pages are re-submitted.

We now, request you to accept the application at an early date.

Thanking you,

Yours truly,

**HIRAL CHANDRAKANT JOSHI
PATENT & TRADE MARKS ATTORNEY**

Encl. 1. Application
3. Drawing
~~5. Cancelled pages~~

2. Complete Specification
~~4. Freshly typed pages~~

501, Vishwa Nanak, Chakala Road,
Andheri (East), Mumbai - 400 099
Tel.: 838-0848, 820-5425, 832-4920, 832-4969
Fax: +91-22-838-0737, +91-22-838-9839
Email : cmjoshi@bom3.vsnl.net.in

MEMBER

**THE CHARTERED INSTITUTE OF PATENT AGENTS
INTERNATIONAL TRADE MARK ASSOCIATION
ASIAN PATENT ATTORNEYS ASSOCIATION**

RMID - 2

(5)

**GOVERNMENT OF INDIA
THE PATENT OFFICE BRANCH
TODI ESTATES, IIIRD FLOOR
SUN MILL COMPOUND, LOWER PAREL(WEST)
MUMBAI - 400 013.**

Tel. No. 4924058
4925092
Fax No. 4950622

Date: 07 12 /2001

No. 611/BOM/ 1998
To
Chandrakant M.Joshi,
501, Vishwananak,
Chakala Road,
Andheri (East),
Mumbai 400 099

62/63
13/12

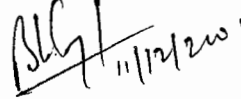
Sub: Patent Application No. 611/BOM/ 1998

Sir,

With reference to your letter No. PTN/8249 dated 05.11.2001, I would invite your attention to the paragraphs noted below.

The marginally noted documents are returned herewith.

Yours faithfully,



(Dr. B.K. Singh)

Examiner of Patents & Designs

For Dy./Asstt. Controller of Patents & Designs.

Encl:

1. Application
2. Comp.specn.
3. Drawings
4. Form 3 &5

1. Title in the application and specification should be made consistent with claims.
2. Claim 3 is distinct from the claim No.1
3. On Form 3 Patent Application No. and date should be marked.
4. On Form 5 Patent Application No. and date should be marked.
5. If any amendment by way of correction, revision or excision is made in any page of the specification that page should be freshly typed and filed in quadruplicate.
6. If you desire to proceed with this application the requirements mentioned above should be complied with and the documents returned herewith should be resubmitted immediately so as to enable this office for taking necessary action.
7. The Normal period for putting this application in order for acceptance will expire on ~~08.04.2002~~. 19-01-2003 .

tg



RMID - 2

CHANDRAKANT M. JOSHI
PATENT & TRADE MARK ATTORNEYS

6

PTN/8249
28/12/2001

501, Vishwa Nanak, Chakala Road,
Andheri (East), Mumbai - 400 099
Tel.: 838-0848, 820-5425, 832-4920, 832-4969
Fax: +91-22-838-0737, +91-22-838-9839
Email : cmjoshi@bom3.vsnl.net.in

To,
The Controller of Patents,
Patent Office,
Mumbai.

*P-1
for
31-12-01*

MEMBER

**THE CHARTERED INSTITUTE OF PATENT AGENTS
INTERNATIONAL TRADE MARK ASSOCIATION
ASIAN PATENT ATTORNEYS ASSOCIATION**

Dear Sirs,

**Sub : Patent Application No. 611/BOM/1998
by BHARAT BHOGILAL PATEL**

Please refer to your letter no. 611/BOM/1998/6263 dated 07/12/2001 wherein a set of objection was raised. We now give our observation as under ;

Referring to para 1, the title has been made consistent with application and claims.

Referring to para 2, the claim 3 has been made dependent.

Referring to para 3, Patent application no. and date has been incorporating in Form 3.

Referring to para 4, Patent application no. and date has been marked in Form 5.

Freshly typed page in quadruplicate alongwith the cancelled pages has been resubmitted.

We now, request you to accept the application at an early date.

Thanking you,

Yours truly,

**HIRAL CHANDRAKANT JOSHI
PATENT & TRADE MARKS ATTORNEY**

Encl. 1. Application 2. Complete Specification
3. Freshly typed pages 4. Cancelled pages

C. Form - 3



RMID - 2

7

GOVERNMENT OF INDIA
PATENT OFFICE BRANCH
TODI ESTATES, 3RD FLOOR,
SUN MILL COMPOUND,
LOWER PAREL (WEST)
MUMBAI- 400 013.

No. 611 /BOM/ 98

Dated: 28-1-2002

To

C. M. Joshi
Patent & Trade mark Attorneys
S/O, Vishwananath CHAKALA ROAD.
ANDHERI (EAST)
MUMBAI- 400 099

Sub: Patent Application No. 611/BOM/98
Acceptance Intimation thereof.

Sir/Madam,

The above mentioned application for patent has been accepted and such acceptance will be advertised in the official Gazette of India under the provisions of Section 23 of Patents Act, 1970 by the Head Office at Calcutta and consequently the notice of the same would be duly communicated to you by the said office.

Yours faithfully,

B. K. Singh
28/01/2002

B. K. Singh
Examiner of Patents and Designs
For Dy/Asst. Controller of Patents and Designs.

O/C
28-1-2002

RMID-2

GOVERNMENT OF INDIA
PATENT OFFICE BRANCH
TODI ESTATES, IIIRD FLOOR
SUN MILL COMPOUND, LOWER PAREL (WEST),
MUMBAI-400 013.

3

Tel. No.4924058

4925092

4961370

Fax No.4950622

E-Mail:patmum@vsnl.net

Date : 27 MAR 2002

51
1/4/02

No.: 611/BOM/1998

To,
The Joint Controller of Patents & Designs
The Patent Office
2nd M.S.Office Building,
Nizam Palace, 234/4, A.J.Bose Road,
CALCUTTA-700 020.

Sub: Acceptance of Patent Application No. : 611/BOM/1998

Sir,

I am to state that the complete specification in respect of application for Patent No. 611/BOM/1998 has been accepted in this office. A serial number may kindly be allotted to the said accepted Complete Specification and the notice of acceptance issued to the applicant(s) directly from your office and copy therefore endorsed to this office for record. The notification regarding acceptance of this application for publication in the Gazette of India, the original ~~Provisional Specification including drawings~~, complete specification including drawings as accepted, the Abridgement, Opening page, Coding Sheet and Abstract are enclosed herewith for further action in regard to publication and printing. There is/are no corresponding application(s) filed abroad on this invention.

~~This application relates to Food/Drug, under Section 5(a) of the Patents Act, 1970.~~

~~The reference of Indian copending application given on pages 10 & 12 of the complete specification may be replaced by corresponding Patent specification No. 1 1~~

~~Triplicate copies of the application, Provisional Specification including drawings and complete specification including drawings are enclosed herewith for your office use.~~

Yours faithfully,

(DR. B. K. SINGH)

EXAMINER OF PATENTS & DESIGNS
For DY. JOINT CONTROLLER OF PATENTS & DESIGNS

Enclosures :

1. Application
- ~~2. Prov. Specn including drawings (original & triplicate)~~
3. Complete Specification including drawings (original & triplicate) Page No. 1. NO DRWG.
4. Notification (Eight copies)
5. Abridgement
6. Coding Sheet (in Duplicate)
7. Abstract
- ~~8. Statement of the application filed~~
- ~~9. Alteration of date (duplicate)~~
10. A copy of Form-10/Form-6
11. A copy of Form-29/Form-13
12. Notification for claimant under Section 20(1)(Duplicate)

18/2/02

CIVIL - 2

24/11/05

Manoj G. Menda
6/7 Sorab Bhanuwa Rd,
Colaba,
Mumbai 400 005

To,
The Controller of Patents.
The Patents Office,
Lower Panel,
Mumbai.

(9)

Ref:- Status of Patent Application Nos.

1) 610/BOM/1998

2) 611/BOM/1998 under S-153 of the Patents Act

Respected Sir,

I, hereby, request you to kindly furnish me with details regarding the status of the aforesaid two applications, as to whether these applications have been opposed or have been granted patent and have been sealed along with the date of sealing.

Thanking you in anticipation.

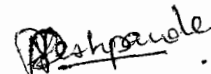
Yours faithfully,

650/...
CRP संख्या/8729 24/11/05
के २९ दिनांक २००५

24/11/05
प्रवा. अधिकारी

24/11/05
लेखिका

For, Manoj G. Menda



RMID-2



INTELLECTUAL
PROPERTY **INDIA**
बौद्धिक सम्पदा भारत
एकस्व / अभिकल्प / व्यापार चिन्ह /
भौगोलिक संकेत
PATENTS / DESIGNS /
TRADEMARKS /
GEOGRAPHICAL INDICATIONS

No. 611/BOM/1998

To,
Manoj G. Menda,
6/7 Sohrab Bharucha Rd.,
Colaba,
Mumbai 400 005.



सत्यमेव जयते

भारत सरकार / GOVERNMENT OF INDIA
पेटेंट कार्यालय / THE PATENT OFFICE
तोडी इस्टेट, ३ री मंजिल, सन मिल कंपाउंड, लोअर पारेल
(प.), मुंबई - १३
Todi Estate, 3rd Floor, Sun Mill Compound
Lower Parel (West), Mumbai - 400 013

6970
8/12/05

दूरभाष Tel ☎ 022-2492 4058
022-2492 5092
022-2496 1370
022-24949845
022-24922710

फॅक्स Fax ☎ 022-2495 0622
022-24903852
Email patmum@vsnl.net
Website www.ipindia.nic.in

Date: 8/12/05

Sub:Request u/s 153 in respect of Patent Application
No. 611/BOM/1998

Sir,

With reference to your letter dated 24/11/2005 requesting information u/s 153 in respect of patent application No. 611/BOM/1998, I would like to inform you that patent has been granted (sealed) on 14.08.2003 to said application.

Yours faithfully,

P Jain
7/12/05

(Pinkesh Jain)

Examiner of Patents & Designs.
For Asstt. Controller of Patents & Designs.

o/c
P

RMID - 2

FORM 1

THE PATENTS ACT, 1970

31 DEC 2001

APPLICATION FOR PATENT WHEN THE TRUE AND FIRST INVENTOR
IS THE SOLE OR JOINT APPLICANT

(See Section 7)

I BHARAT BHOGILAL PATEL of 1/41 JUHU GOLD MIST, JUHU
GULMOHAR ROAD, J.V.P.D. SCHEME, VILE PARLE(W) MUMBAI - 400
049, MAHARASHTRA, India , INDIAN national hereby declare : -

i) that I am in possession of an invention for
AN IMPROVED LASER MARKING & ENGRAVING MACHINE ;

ii) that I the said BHARAT BHOGILAL PATEL claim to be the
true and first inventor thereof;

iii) that the complete specification filed with this
application is and any amended specification which
may hereafter be filed in this behalf will be true
of the invention to which this application relates;

iv) that I believe that I am entitled to a patent for
the said invention having regard to the provisions
of the Patents Act, 1970;

DUPL v) that to the best of my knowledge, information and
belief the facts and matters stated herein are
correct and that there is no lawful ground of
objection to the grant of patent to me on this
application.

6/11/2002/98

21/9/98

I request that a patent may be granted to me for the said
invention.

RMID - 2



request that all the notices, requisitions and communications relating to this application may be sent to :-

CHANDRAKANT M. JOSHI
PATENT & TRADE MARK ATTORNEYS,
501, "VISHWANANAK" , CHAKALA ROAD,
ANDHERI (EAST), MUMBAI - 400 099.

Dated this 2nd day of September 1998.

x *Bharat Patel*

BHARAT BHOGILAL PATEL

To
The Controller Of Patents,
The Patent Office,
Mumbai

RMID - 2

2 pages

FORM 1

THE PATENTS ACT, 1970

APPLICATION FOR PATENT WHEN THE TRUE AND FIRST INVENTOR IS THE SOLE APPLICANT

(See Section 7)

I BHARAT BHOGILAL PATEL of 1/41 JUHU GOLD MIST, JUHU GULMOHAR ROAD, J.V.P.D. SCHEME, VILE PARLE (W) MUMBAI - 400 049, India, INDIAN national hereby declare : -

ORIGINAL

- i) that I am in possession of an invention for AN IMPROVED ENGRAVING AND MARKING MACHINE using LASER TECHNOLOGY ;
- ii) that I the said BHARAT BHOGILAL PATEL claim to be the true and first inventor thereof;
- iii) that the complete specification filed with this application is and any amended specification which may hereafter be filed in this behalf will be true of the invention to which this application relates;
- iv) that I believe that I am entitled to a patent for the said invention having regard to the provisions of the Patents Act, 1970;
- v) that to the best of my knowledge, information and belief the facts and matters stated herein are correct and that there is no lawful ground of objection to the grant of patent to me on this application.

I request that a patent may be granted to me for the said invention.

E11/Bom/98

21.9.98

611 BOM 1998

21 SEP 1998

RMID - 2

Received by 300/...
 Date 21/9/98
 Vide Entry 5128 in the
 Register of Patents

[Handwritten signature]



I request that all the notices, requisitions and communications relating to this application be sent to :-

CHANDRAKANT M. JOSHI
PATENT & TRADE MARK ATTORNEYS,
501, "VISHWANANAK", CHAKALA ROAD,
ANDHERI (EAST), MUMBAI - 400 099.

Dated this 2nd day of September, 1998.

Bharat Patel

BHARAT BHOGILAL PATEL

To
The Controller Of Patents,
The Patent Office,
Mumbai

RMID - 2

THE PATENTS ACT, 1970.
STATEMENT AND UNDERTAKING UNDER
SECTION 8

(see Rule 13)

I BHARAT BHOGILAL PATEL of 1/43 JUHU GOLD MIST, JUHU GULMOHAR ROAD, J.V.P.D. SCHEME, VILE PARLE(W) MUMBAI - 400 049, MAHARASHTRA, India, INDIAN national who have made an application for patent Numbered 611/BOM/1998 dated 21/09/1998 for our invention relating to AN IMPROVED LASER MARKING & ENGRAVING MACHINE hereby declare :-

- (i) We claim the title to make the said application/deriving the title in the said invention from me/us, have made application for patent for the same/invention in the following countries namely :
- (a) NONE
- (ii) that the said application has/have been accepted, refused, abandoned or withdrawn; NONE
- (iii) that the following patent has/have been granted on such application :- NONE
- (iv) that the rights in the application have been assigned to NONE
- (v) that I undertake that upto the date of acceptance of the complete specification filed in connection with our above mentioned application, we would keep the controller informed in writing from time to time of the details regarding application for patents filed outside India from time to time for the same or substantially same invention within three months from date of filing of such application;
- (vi) that the facts and matters stated herein are true to our knowledge, information and belief.

Dated this 12th day of September, 1998.

ORGN

611/Bom/98

21/1/98


HIRAL CHANDRAKANT JOSHI
AGENT FOR
BHARAT BHOGILAL PATEL

To
The Controller Of Patents,
The Patent Office,
Mumbai

RMID - 2

FORM - 4

THE PATENTS ACT, 1970.
STATEMENT AND UNDERTAKING UNDER
SECTION 8



(see Rule 13)

I BHARAT BHOGILAL PATEL of 1/41 JUHU GOLD MIST, JUHU GULMOHAR ROAD, J.V.P.D. SCHEME, VILE PARLE (W), MUMBAI - 400 049 India, INDIAN national who have made an application for patent Numbered 611 /BOM/1998 dated 21 / 9 /1998 for our invention relating to AN IMPROVED ENGRAVING AND MARKING MACHINE WITH LASER TECHNOLOGY hereby declare :-

- (i) We claim the title to make the said application/deriving the title in the said invention from me/us, have made application for patent for the same/invention in the following countries namely :
- (a) NONE
- (ii) that the said application has/have been accepted, refused, abandoned or withdrawn; NONE
- (iii) that the following patent has/have been granted on such application :- NONE
- ** (iv) that the rights in the application have been assigned to NONE
- ** (v) that I undertake that upto the date of acceptance of the complete specification filed in connection with our above mentioned application, we would keep the controller informed in writing from time to time of the details regarding application for patents filed outside India from time to time for the same or substantially same invention within three months from date of filing of such application;
- ** (vi) that the facts and matters stated herein are true to our knowledge, information and belief.

Dated this 2nd day of September 1998.

x *Bharat Patel*
BHARAT BHOGILAL PATEL

To
The Controller Of Patents,
The Patent Office,
Mumbai

611 | 21 SEP 1998
BOM

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21 SEP 1998

FORM 5

THE PATENTS ACT, 1970

DECLARATION AS TO INVENTORSHIP



[(See Rule 14(5))]

I BHARAT BHOGILAL PATEL of 1/41 JUHU GOLD MIST, JUHU GULMOHAR ROAD, J.V.P.D. SCHEME, VILE PARLE (W) MUMBAI - 400 049 India, INDIAN national do hereby declare that the true and first inventor of the invention disclosed in the complete specification filed in pursuance of my application numbered 611/BOM/1998 Dated 21/9/1998 is BHARAT BHOGILAL PATEL of 1/41 JUHU GOLD MIST, JUHU GULMOHAR ROAD, J.V.P.D. SCHEME, VILE PARLE (W), MUMBAI - 400 049 MAHARASHTRA India, INDIAN national and that our right to apply for a patent for the invention is as follows : -

I am the true and first Inventor.

Dated this 2nd day of September, 1998.

x Bharat Patel

BHARAT BHOGILAL PATEL

To
The Controller Of Patents,
The Patent Office,
Mumbai

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BOM |
21 SEP 1998

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ORIGINAL

FORM 6

THE PATENTS ACT, 1970

DECLARATION AS TO INVENTORSHIP

[(See Rule 14(5))]



I BHARAT BHOGILAL PATEL of 1/41 JUHU GOLD MIST, JUHU GULMOHAR ROAD, J.V.P.D. SCHEME, VILE PARLE (W) MUMBAI - 400 049 India, INDIAN national do hereby declare that the true and first inventor of the invention disclosed in the complete specification filed in pursuance of my application numbered 611 /BOM/1998 Dated 21 / 9 /1998 is BHARAT BHOGILAL PATEL of 1/41 JUHU GOLD MIST, JUHU GULMOHAR ROAD, J.V.P.D. SCHEME, VILE PARLE (W), MUMBAI - 400 049 MAHARASHTRA India, INDIAN national and that our right to apply for a patent for the invention is as follows : -

I am the true and first Inventor.

Dated this 2nd day of September, 1998.

x *Bharat Patel*

BHARAT BHOGILAL PATEL

To
The Controller Of Patents,
The Patent Office,
Mumbai

611 | 21 SEP | 1998
| BOM |

21 SEP 1998

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