

Adv Swapnil Jayantrao Gawande
(IN/PA-1587)

Office: Plot no 130,
C/o Dhatrak, Hanuman nagar,
Medical Square, Nagpur.
Mob: 9890333567

Resi: R9 Harshnil, Eknath puram
near Shankar nagar, Amravati
Ph: 0721-2566861
E-mail:- sgawande@gmail.com

To
The controller of patents,
The patent office,
At Mumbai

APPLICATION FOR PATENT ALONG WITH COMPLETE SPECIFICATION

APPLICANT(S)

Name	Nationality	Address
Ingole Vijay Tulshiram	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Ashutosh Vijay	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Paritosh Vijay	Indian	104 Ganediwal layout, camp, Amravati-444602

Documents attached with the application:-

	Number of Pages
Form 1	3
Form 2	14
Form 3	1
Form 9	1
Form 18	1
Form 26	1

TOTAL 21 pages

Fee paid along with the application:-

1. Form 1 Rupees 1000(one thousand only)
2. Form 9 Rupees 2500(two thousand five hundred only)
3. Form 18 Rupees 2500(two thousand five hundred)

TOTAL AMOUNT RUPEES 6000(SIX THOUSAND ONLY)

Mode of payment in Cash/Cheque/bank draft bearing no

FORM 1

(FOR OFFICE USE ONLY)

THE PATENT ACT 1970
(39 OF 1970)And
The patent rules, 2003Application number:
Filing date:
amount of fee paid:
CBR NO:**APPLICATION FOR GRANT OF PATENT**

[See sec 7, 54,135 and rule20 (1)]

1 APPLICANT(S)

Name	Nationality	Address
Ingole Vijay Tulshiram	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Ashutosh Vijay	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Paritosh Vijay	Indian	104 Ganediwal layout, camp, Amravati-444602

2 Inventor(s)

Name	Nationality	Address
Ingole Vijay Tulshiram	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Ashutosh Vijay	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Paritosh Vijay	Indian	104 Ganediwal layout, camp, Amravati-444602

3. TITLE OF INVENTION

Periscopic Spectacle

4. ADDRESS FOR CORRESPONDANCE OF AUTHORISED PATENT AGENT IN INDIA:-R 9 Harshnil, Eknath puram
Near yogakshem coloney,
Amravati, MaharashtraPh: 0721-2566861
Mob: 9890333567
E-mail:-sjgawande@gmail.com

5. DECLARATION:

(i) Declaration by the inventors

We the above named inventors are the true and first inventors for this invention

Dated this 18th day June 2010

Signature of the inventors

Name: (1) Ingole Vijay Tulshiram

(2) Ingole Ashutosh Vijay

(3) Ingole Paritosh Vijay

(ii) Declaration by the applicants

We the applicants hereby declare that:-

We are in possession of above mentioned invention.

The complete specification relating to the invention is filed with the application

There is no lawful ground of objection to the grant of patent to us.

Signature of the applicants

Name: (1) Ingole Vijay Tulshiram

(2) Ingole Ashutosh Vijay

(3) Ingole Paritosh Vijay

6. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION

- (a) Complete specification in duplicate
- (b) Drawings in duplicate
- (c) Statement and undertaking on form 3 in duplicate
- (d) Abstract in duplicate
- (e) Form number 26 Power of authorization to patent agent.
- (f) Form number 9.
- (g) Form number 18.

Fee Rs in Cash/Cheque/bank draft bearing no

Date on Bank.

We hereby declare that to the best of our knowledge, information and belief the facts and the matter stated herein are correct and we request that the patent may be granted to us for the said invention.

Dated this 18th day June 2010

Signature:

Name : (1) Ingole Vijay Tulshiram

(2) Ingole Ashutosh Vijay

(3) Ingole Paritosh Vijay

FORM 2

THE PATENT ACT 1970
(39 OF 1970)
AND
The patent rules, 2003

COMPLETE SPECIFICATION
(See section 10: rule 13)

1. TITLE OF INVENTION

Periscopic Spectacle

2 APPLICANTS(S)

Name	Nationality	Address
Ingole Vijay Tulshiram	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Ashutosh Vijay	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Paritosh Vijay	Indian	104 Ganediwal layout, camp, Amravati-444602

3. PREAMBLE TO THE DESCRIPTION

COMPLETE

Following specification particularly describes the invention and the manner in which it is to be performed.

4. DESCRIPTION.

Technical field of invention:

The invention relates generally to a spectacle having in built periscope. More specifically this invention relates to a device for viewing the object through different angle of lines of sight.

Prior art:

The well known periscopes are generally used in order to overcome obstruction in the sight of vision and to facilitate a proper viewing with parallel beam of light rays. They have applications in submarines, in battlefields where objects above, behind having obstruction in direct viewing, are to be observed without physically changing the viewers' position. Periscopes have also applications in aquatic games where objects above water level or below are to be seen. Generally all such periscopes are bulky and designed for parallel rays of light generally having two reflectors for composing a true image. It is known that the view angle of a human eye is limited and whenever one desires to see object or events not exactly in alignment with the eye, one has to bend or turn the eye ball and/ or the neck. In many situations while lying in supine position it becomes uncomfortable, impossible or undesirable to bend the neck to observe events occurring in horizontal direction for bed ridden patients, soldiers in the field lying in supine position for security reasons, bay-watchers lying in supine position desire to enjoy scenery and more so for star gazers in standing or erect position desiring to observe stars or objects directly above the head and especially when one desires to studying written or printed materials in supine position, it becomes physiologically tiresome to keep the neck and hands typically in lifted posture. There has been a long felt need to provide a solution to all such problems, where for either for comforts or security reasons, the view need to be

reflected, without distortion, by another angle. A new spectacle for viewing or reflecting the view between 60 to 120 degree angles comprises a device for reflecting object or event specifically by 90 degree angle but generally by extended angle with a perception of a true image. The device comprises an enclosure with pair of mirror mounted on back plates on hinged like mechanism or coupling or provision for attachment, or to be an integral part of a spectacle, meant for attaching to any mask, binocular, camera or any external optical wear. The said enclosure comprises object mirror disposed in front of window opening facing the objects and eye mirror disposed in front of another window opening meant for viewing by eyes. The said window openings are generally placed at a designed angle by means of the hinge. The angle between the said object reflector or mirror and object or scenery as well as the angle between and said eye reflector or mirror are designed so as to reflect the incoming light rays from the object thereby bending them generally through disired angle and further in this process the light coming from the objects reflected twice thereby creating a true perception of image aligned with the line of sight of eyes. When the periscope is viewed through the said eye mirror window opening, the user can observe true vision of events perpendicular to the line of sight of the eye. The proposed compact and light weight periscopic spectacle for viewing the objects through different angle provides a simple solution to problems referred herein.

Object:

The primary object of this invention is to provide an spectacle having in built periscope for viewing through different angles of sight.

Other objects, features and advantages will become apparent from detail description and appended claims.

STATEMENT:

Following specification provides a novel periscopic spectacle for viewing object at different angle comprises a device for reflecting object or view generally by different line of sight angle with a perception of a true image and an enclosure means with coupling for attachment or to be an integral part of any mask, binocular, camera or any optical devices or external eye wear and means to protect means to avoid unwanted stray light from entering inside the device and comprises mirrors or reflector, hereinafter referred to as reflector, means object reflectors disposed in front of window openings means for accepting the light rays from the object or view under observation and placed at a typical angle means with respect to the incoming light rays means reflecting the said light on eye reflectors disposed in front of another window opening means for receiving the said rays of light reflected from the said object reflectors and the said eye reflectors is placed at a typical angle means to reflect the said rays of light from the said object reflectors means coming from the object or event under observation for viewing by the user and the said window openings means object window opening and eye window openings generally placed at a desired angle means to facilitate unobstructed means desired angled path for the said rays of light coming from the object or event under observation and further the angle, means between the said reflectors means between the said object reflectors and said eye reflectors, is designed means to reflect the incoming light ray from the object, means by the combines action of the said reflectors, for bending them generally through desired angle and further the said light rays coming from the objects first reflect over the said object reflector means thereby bending them in the direction towards the said eye reflector means for further reflecting the said light rays means towards the eyes of the observer, and further thus means the said light rays coming from the object or event thus reflects twice means first over the said object reflector and then over the said eye reflectors thereby composing or creating a true

perception of object image and thereby when the periscope is viewed through the eye reflector window opening, the user can see events in the desired angle to the line of sight of the eye and alternatively means the said eye reflectors may further consist of a mechanism means adjustable arrangement means for changing the reflecting or bending angle means other angles, of the object or view. This has heretofore not been achievable with prior periscopic spectacle and so the periscope for viewing through desired angle under disclosure provided in accordance with the present invention solves a long-felt need in the art for periscopic spectacle which have a simple construction and light weight and eliminates the need for bending neck and/or eye sockets to view object or event at other angle to the line of sight thereby rendering them very convenient and useful for patients who have to lie in supine position, soldiers in the field who have to lie in supine position for security reasons, bay-watchers lying in supine position desire to see events occurring in horizontal direction; star gazers in standing or erect posture desire to see things directly above and for user to study written or printed material in supine position and many other situations.

These and other advantages will be more readily understood by referring to the following detailed description for a typical periscopic spectacle for viewing through different desired angles disclosed herein with reference to the accompanying drawings and which are generally applicable to other devices to fulfill particular application illustrated hereinafter.

BRIEF DESCRIPTION OF DRAWING:

The invention is described by way of example with reference to the following drawings

Sheet 1 of 2 Figure-1A is of the internal parts and their assembly of the periscopic spectacle for viewing through desired angle including 90 degree angle provided in accordance with the present invention.

Sheet 1 of 2 Figure-1B is a side elevation of the periscopic spectacle for viewing provided in accordance with the present invention.

Sheet 1 of 2 Figure-1C is another side view of the periscopic spectacle for viewing provided in accordance with the present invention.

Sheet 1 of 2 Figure-1D is a bottom view of the periscopic spectacle for viewing provided in accordance with the present invention.

Sheet 2 of 2 Figure-2 is the enlarge elevation view of the internal parts and their assembly of the periscopic spectacle.

Detailed description:

Referring now to the drawings wherein like reference numerical refers to like elements, Figure-1A shows a internal parts and their assembly of the said periscopic spectacle for viewing through various angle adjustable typically from 120 to 60 degrees and normally through 90 degrees comprises an enclosure 6 to which ear supports 15 are attached through hinges 14 and having full opening on base-plate 5 and 3 sides respectively. It further comprises an eye mirror 1 mounted on a base plate 3. Base plate 3 is attached to the side of the enclosure 6 by hinges 8 so as to swivel. The base plate 3 has an opening 4 through which light A can enter in the enclosure 6. Generally to the side edge of the base plate 3 at its centre a hinge 9 is provided. To this hinge 9 a lever 16 is attached to facilitate the partial rotation of the base plate 3 so also eye mirror 1 around the hinge 8. The device further comprises an object

mirror 2 mounted on a base plate 5. Base plate 5 is attached to other side of the enclosure 6 by hinges 7 so as to swivel. Generally to the side edge of the base plate 5 at its centre a hinge 10 is provided. To this hinge 10 a lever 11 is attached to facilitate the partial rotation of the base plate 3 and so that of object mirror 2 can partially rotate around the hinge 7. Another end of the lever 11 and lever 16 respectively are attached to a knob 12 which can be moved along the arrow and fixed at a desired position inside the slot 13. When the knob 12 is moved to and fro inside the slot 13 the levers 11 and 16 are in turn moved respectively in the hinges 10 and 9. The movement of hinge 10 and 9 partially rotate the base-plate 5 and 3 so the mirrors 2 and 1 mounted on them respectively so that a desired viewing angle can be adjusted. Figure-1B shows the side view of the device where opening 4 for the incoming light and base-plate 3 are shown. Figure-1c shows another side view of the device where base-plate 5 is shown. As shown in Figure-1D the bottom portion of the enclosure 6 an opening 17 is provided to receive the light by the eyes. When a light ray A from object (not shown) enter the enclosure 6 through opening 4 it falls on object mirror 2 mounted on base-plate 5 and reflects in the direction of AA and falls on eye mirror 1 mounted on base-plate 3 and further reflects in the direction of AAA and falls on eyes (not shown) of the observer and thereupon the observer perceives the object in line with ray AAA.

This has heretofore not been achievable with prior devices and so the periscopic spectacle for viewing through various angle under disclosure provided in accordance with the present invention solves a long-felt need in the art for periscope having light weight and simple construction, and eliminates the need for bending neck and/or eye sockets to view object or event at desired angle to the line of sight thereby rendering them very useful for patients who have to lie in supine position, soldiers in the field who have to lie in supine position for security reasons, bay-watchers lying in supine position desire to see events occurring in horizontal

direction, star gazers in standing or erect posture desire to see things directly above and for studying written or printed materials in supine position.

The preferred embodiments as shown in Figure-1A, Figure-1B, Figure-1C and Figure-1D refer to a typical periscopic spectacle for viewing through various angle and typically through 90 degrees under disclosure provided in accordance with the present invention, but it will be readily recognized by those with skill in the art of optics that a periscope based on the principles described herein employing object reflector and eye reflector placed at an angle to reflect the light through various angle without distorting the image of the object or event having different enclosures, can be built and designed on commercial scale.

There have thus been described certain preferred embodiments of periscopic spectacle for viewing through various angle varying between 60 to 120 degrees under disclosure provided in accordance with the present invention. While preferred embodiments have been described and disclosed, it will be recognized by those with skill in the optics and related art that modifications are within the true spirit and scope of the invention. The claims are intended to cover all such modifications.

We claim:-

1. A novel Periscopic spectacle for viewing objects located at different angles between 60 to 120 degrees from the line of sight comprises a device for reflecting object or view with a perception of a true image and an enclosure means with coupling for attachment or to be an integral part of any mask, binocular, camera or any optical devices or external eye wear and means to protect and avoid unwanted stray light from entering inside the device and comprises mirrors or reflector, hereinafter referred to as reflector, means object reflectors disposed in front of window openings means for accepting the light rays from the object or view under observation and placed at a typical angle means with respect to the incoming light rays means reflecting the said light on eye reflectors disposed in front of another window opening means for receiving the said rays of light reflected from the said object reflectors and the said eye reflectors is placed at a typical angle means to reflect the said rays of light from the said object reflectors means coming from the object or event under observation for viewing by the user and the said window openings means object window opening and eye window openings generally placed at a desired angle means to facilitate unobstructed means desired angled path for the said rays of light coming from the object or event under observation and further the angle, means between the said reflectors means between the said object reflectors and said eye reflectors, is designed means to reflect the incoming light ray from the object, means by the combines action of the said reflectors, for bending them generally through desired angle and further the said light rays coming from the objects first reflect over the said object reflector means thereby bending them in the direction towards the said eye reflector means for further reflecting the said light rays means towards the eyes of

the observer, and further thus means the said light rays coming from the object or event thus reflects twice means first over the said object reflector and then over the said eye reflectors thereby composing or creating a true perception of object image and thereby when the periscopic spectacle is viewed through the eye reflector window opening, the observer can see object, views or events in the desired angle to the line of sight of the eye and alternatively means the said eye reflectors may further consist of a mechanism means adjustable arrangement means for changing the reflecting or bending angle means other angles, of the object or view.

2. The said enclosure, as recited in claim 1, means with coupling for attachment or to be an integral part of any mask, binocular, spectacles or any external eye wear and means to protect means to avoid unwanted stray light from entering inside the device and comprising said object window openings and eye window opening generally placed at any desired angle with respect to each other means to facilitate unobstructed means desired angled path for the said rays of light coming from the object or event under observation.
3. The said object reflectors, as recited in claim 1, disposed in front of said the window openings means for accepting the light rays from the object or event under observation and placed at a typical angle means with respect to the incoming light rays means reflecting the said light on the eye reflectors disposed in front of another window opening means for receiving the said rays of light reflected from the said object reflectors.
4. The said eye reflectors, as recited in claim 1, are placed at a typical angle means to reflect the said rays of light from the said object reflectors means coming from the object or event and directing the said rays of light of object or event under observation towards the eyes for viewing by the user.
5. The said eye reflectors, as recited in claim 1, claim 4, alternatively may further consist of a mechanism means adjustable arrangement means for changing the

reflecting or bending angle means of the object or event for various angle of sight.

6. The angle, means between the said reflectors means between the said object reflectors and said eye reflectors, as recited in claim 1, claim 2, claim 3, claim 4, and claim 5, is designed means to reflect the incoming light ray from the object, means by the combines action of the said reflectors, for bending them generally through certain angle and further the said light rays coming from the objects first reflect over the said object reflector means thereby bending them in the direction towards the said eye reflector means for further reflecting the said light rays means towards the eyes of the user.
7. The said object reflectors and said eye reflectors, as recited in claim 1, claim 2, claim 3, claim 4, claim 5, and claim 6, reflects means the said light rays coming from the object or event thus means first over the said object reflector and then over the said eye reflectors means two consecutive reflections, thereby composing or creating a true perception of object image in the line of sight of eyes and thereby when the periscopic spectacle is viewed through the eye reflector window opening, the user can see true image of events bend at desired angle to the line of sight of the eye.
8. The periscope for viewing through desired angle as recited in claim 1, claim 2, claim 3, and claim 4, claim 5, claim 6, and claim 7, and as described and illustrated in preferred embodiments and ascertain the nature of this invention and the manner in which it is to be performed and revealed in diagrams of Figure-1A, Figure-1B, Figure-1C and Figure-1D.

ABSTRACT

A novel spectacle comprises a periscope for viewing object or scenery located not in the line of sight but at different angle varying between 60 to 120 degrees. The said spectacle can be attached to devices like binocular, camera or any other optical devices to capture visuals which are not in the line of sight. The periscope comprises an object reflector disposed over an opening in front of the object to be viewed and also another reflector disposed over another opening in front of eyes for viewing. The said reflectors are generally placed at specific designed angles. The reflectors are fixed on two back supports which are generally hinged together so that by varying the angle of the supports in a way that of the reflectors by a mechanism so as to change the angle between the line of object means the line of sight of the optical path of the object or scenery and the line of sight of the eyes for a desired viewing angle. Furthermore the light rays coming from the objects are reflected twice thereby inverting the incoming image twice so as to create a true perception of object image. Following invention is described in detail with the help of figure Figure-1A is of the internal parts and their assembly of the Periscopic spectacle for viewing through a typically right angle provided in accordance with the present invention. Figure-1B is a side elevation of the Periscopic spectacle for viewing provided in accordance with the present invention. Figure-1C is another side view of the Periscopic spectacle for viewing provided in accordance with the present invention. Figure-1D is a bottom view of the Periscopic spectacle for viewing provided in accordance with the present invention.

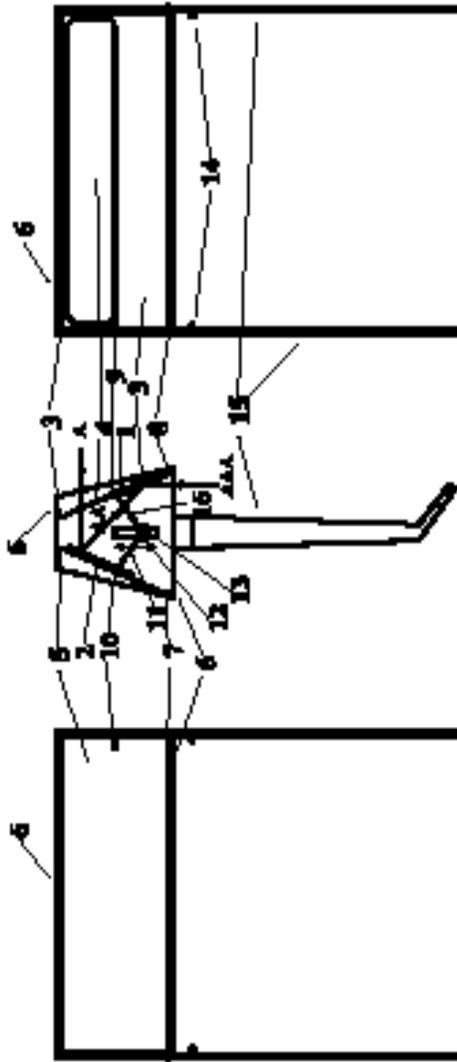


Figure-1A

Figure-1B

Figure-1C

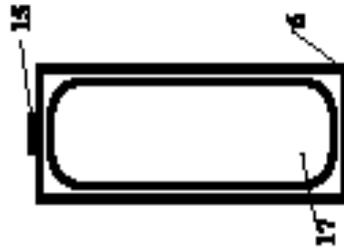


Figure-1D

FORM 3
THE PATENT ACT 1970
(39 OF 1970)
AND
The patent rules, 2003
STATEMENT AND UNDERTAKING UNDER SECTION 8
(See section 8; rule 12)

We

Name	Nationality	Address
Ingole Vijay Tulshiram	Indian	104 Ganediwal layout, camp, Amravati-444602
Ingole Ashutosh Vijay	Indian	104 Ganediwal layout,camp,Amravati- 444602
Ingole Paritosh Vijay	Indian	104 Ganediwal layout,camp,Amravati- 444602

Hereby declare:-

(i) That we have not made any this application for the same /substantially the same invention outside India.

Dated this 18th day June 2010

Signature

Ingole Vijay Tulshiram

To
The controller of patents,
The patent office,
At Mumbai

FORM 9
THE PATENT ACT 1970
(39 OF 1970)
AND
The patent rules, 2003

REQUEST FOR PUBLICATION
(See section 11-A (2); rule24-A)

We

Name	Nationality	Address
Ingole Vijay Tulshiram	Indian	104 Ganediwal layout,camp,Amravati-444602
Ingole Ashutosh Vijay	Indian	104 Ganediwal layout,camp,Amravati-444602
Ingole Paritosh Vijay	Indian	104 Ganediwal layout,camp,Amravati-444602

Hereby request for early publication of our application titled "Periscopic Spectacle" attached herewith the application under section 11(a) 2 of the act.

Dated this 18th day June 2010

Signature

Ingole Vijay Tulshiram

To
The controller of patents,

The patent office,
At Mumbai

FORM 18
THE PATENT ACT 1970
(39 OF 1970)
And
The patent rules, 2003

(FOR OFFICE USE ONLY)

Application number:
filing date:
amount of fee paid:
CBR NO:

REQUEST FOR EXAMINATION OF APPLICATION OF PATENT
[See section 11-B and rules 20(4)(ii),24-B(1)(i)]

1. APPLICANT

Name	Nationality	Address
Ingole Vijay Tulshiram	Indian	104 Ganediwal layout,camp,Amravati-444602
Ingole Ashutosh Vijay	Indian	104 Ganediwal layout,camp,Amravati-444602
Ingole Paritosh Vijay	Indian	104 Ganediwal layout,camp,Amravati-444602

We hereby request that our application for patent titled "Periscopic Spectacle" attached herewith the application shall be examined under section 12 and 13 of the act.

Address for service: - 104 Ganediwal layout, camp, Amravati-444602.

Dated this 18th day June 2010

Signature

Ingole Vijay Tulshiram

To
The controller of patents,
The patent office,

At Mumbai

FORM 26
THE PATENTS ACT, 1970
(39 OF 1970)
&
THE PATENTS RULES, 2003

FORM OF AUTHORISATION OF A PATENT AGENT/ OR ANY PERSON IN A
MATTER OR PROCEEDING UNDER THE ACT

[Section 127 and 132 and Rule 135]

We,

Name	Nationality	Address
Ingole Vijay Tulshiram	Indian	104 Ganediwal layout,camp,Amravati-444602
Ingole Ashutosh Vijay	Indian	104 Ganediwal layout,camp,Amravati-444602
Ingole Paritosh Vijay	Indian	104 Ganediwal layout,camp,Amravati-444602

hereby authorize Swapnil J Gawande, Advocate and Patent Agent No. IN/PA 1587.of R-9 Harshnil,Eknath puram, nr yogakshem colony Amravati-444607,India to act on my behalf in connection with our patents, assignments, oppositions, rectifications, renewals and request that all notices, requisition and communication relating thereto may be sent to such person unless otherwise specified.

I hereby revoke all previous authorization, if any made, in respect of same matter or proceeding.

I hereby assent to the action already taken by the said person in the above matter.

Dated this 18th day June 2010

Name: Ingole Vijay Tulshiram

Ingole Ashutosh Vijay

Ingole Paritosh Vijay

To,
The Controller of Patents

The Patent Office
At Mumbai