

**PATENT AGENT EXAMINATION, 2010**

**(Under Section 126 of the Patents Act, 1970, as amended)**

**January 23, 2010**

**PAPER II**

**TOTAL MARKS: 100**

**Time: 3 PM to 6 PM (3 hours)**

**Total number of pages: 7**

**Instructions:**

*This paper consists of 2 parts.*

*The first part (Part A) of 40 marks requires you to answer four questions of 10 marks each.*

*The second part (Part B) of 60 marks requires you to answer two questions of 30 marks each.*

*You must attempt all questions. Please read the questions very carefully before answering them. Please also divide your time appropriately so that you are able to complete all answers in time.*

**PART A (40 MARKS)**

**Instructions:**

*Each Question Below Carries 10 (Ten) Marks. Please answer all the questions. Your answer must be brief and to the point. While answering the questions, you are expected to support your answer by giving reasons and citing the relevant sections and rules in the Indian Patents Act.*

1. A research team working with company CRO completed a very difficult R&D project. CRO has filed a provisional patent application on October 10, 2009 in its name. Since then, its researchers have worked further on the invention and are now in a position to file a complete specification. The complete specification is expected to have 61 pages and 113 claims. There are 3 new inventors, of which 2 are foreigners from another institution "CRY" whose names have to be included in the patent application. There is an understanding between "CRO" and "CRY" that the patent application will be filed jointly in the names of the two institutions.

*Suggest a plan of action for the filing of the relevant patent application including the timelines, the essential forms to be filled, fees to be paid and associated formalities to be completed to ensure that the application is in order.*

2. You receive a letter dated November 25, 2009 from the TATAS asking you to represent them in respect of "Snano", their invention relating to a car which guarantees sound sleep to any person travelling within it, barring the driver.

The letter informs you that the client first filed a US application in respect of the "Snano" on May 1, 2007. They later filed a PCT application on December 1, 2007. Now they wish to file a national phase application in India:

- i) What information do you require from the client to assess whether the Snano can be protected in India?
  - ii) You receive the client's letter on November 29, 2009. It will take you at least 5 days to get documents ready and file the papers at the Patent office. What steps would you take to protect your clients interest?
  - iii) Assume in (ii) above that the letter reaches you only on December 5, 2009. What would your advice be?
3. Your client "X" writes to you as follows:

"Our Indian patent issued in December 2009 describes and claims a process of reacting A with B under certain specified conditions to obtain product C. It is also essential that catalyst Q be present in order that product C may possess the desirable characteristics outlined in our disclosure.

Unfortunately, none of the claims in the patent make any reference to catalyst Q at all, even though catalyst Q and the manner in which it is used in the process is clearly described in our disclosure. We would like to take action in the near future against a competitor of ours who has been using our process since the last one year. Do you think we will have difficulty enforcing our patent and, if so, is there anything you can do to improve our prospects for success against our competitor?"

- i) Advise X.
  - ii) Assume that X's invention above has not yet been patented, but is merely the subject of a patent application before the Indian patent office. Would your advice be different? Consider both situations where the application has been published in the official journal as well as situations where it has not been so published?
  - iii) Assume now that the letter above is worded differently. It indicates that X's addition of the catalyst is an improvement not included anywhere in the specification. What would your advice be?
4. Motu wishes to license Chotu's patent relating to a slimming device. Chotu is already selling the product in India, by itself and through various other licensees. Motu hopes to manufacture the same device and sell in remote parts of India. He approaches you to find out if he should go ahead with the licensing deal. What are the aspects you would look into in order to protect your clients interest, including ensuring that Chotu's patent is a good one and that he has complied with all the requirements under

the Indian Patents Act? If a license is finally taken, what are the various requirements under the Patents Act that Motu must comply with?

## PART B (60 MARKS)

This part contains two questions of 30 (Thirty) Marks. Please answer both the questions.

### Question 1.

After reading the below specification carefully, please:

- i) Draft at least 5 claims; 26
- ii) Provide an appropriate title to the specification. 3
- iii) Draft a suitable abstract 5

Ind. Claim : 10 ✓  
Dependent cl.: 12 ✓

### Field of the Invention

The present invention discloses a device capable of harvesting and planting of plantable materials, maintaining their integrity during harvesting and transplantation. Further the device has an optional holder and a protective case also capable of functioning as a handle.

### Background of the Invention

"Root-by Root" follicular hair transplantation is an accepted hair replacement alternative for hair loss. It has also become popular as a cosmetic means. Traditional transplantation of large punches became unacceptable due to its poor cosmetic result. It also produced loss of valuable hair grafts during and after transplantation procedure. This led to the preparation of mini, micro and ultimate follicular hair grafts and transplanting them into desired areas.

The process of hair transplantation demands meticulous harvesting of the plantable material from the donor site and plantation of several hundreds of grafts in short time without damaging the roots. Several methods and instruments have been developed based on steps that involve damage free harvesting of the plantable material from the donor site, creation of appropriate recipient site, keeping the site open during the plantation process placing the graft into the site maintaining its integrity and ensuring closure of the site after the plantation process is completed. The plantation process generally involves steps that include creation of an ideal recipient site, keeping the site open and placement of the graft into the site maintaining its integrity.

Difficulties encountered in instruments involving plurality of grafts are (1) it is difficult to keep the multiple grafts separate as they have a tendency to stick to each other, (2) need to maintain all the grafts in moist and cool conditions, (3) possibilities of the graft floating out in the saline solution, (4) planting surface getting flooded with stored saline from the tube obstructing the view and delaying the plantation process, (5) grafts falling off the tube during the maneuvering, (6) longer tubes to store more grafts make the maneuvering of instrument and the grafts difficult.

Other planting instruments described in the prior art utilize suction, spring device or electricity. Loading of the planting material is done from the sharp piercing end with possibility of direct damage or degloving type injury if the planting material does not well fit into the cavity of piercing end. In instruments where the planting material is pushed by a rod or cylindrical material blindly inside the cavity, it may damage by crushing, folding, squeezing, distorting, bending or jamming. Some of the instruments are so configured that they cause obstruction to the view of the surgeon while pushing the plant able material in the planting site thereby causing backpressure due to air lock. Some of the planters are not workable with material of variable textures such as soft hair or artificial hair. Devices described in the prior art cannot as well be used for plantation of part of the follicle or soft connective tissues. Harvesting and plantation is not possible with a common instrument as described in prior art

### **Summary of the invention**

The main object of the invention is to provide a functionally cost effective manually operated instrument that is capable of performing harvesting as well as plantation of wide range of plant able materials into diverse substrates at enhanced plantation speeds maintaining follicular integrity resulting in better yield. Another object of the invention is to provide an instrument for silent non-traumatic hair transplantation that ensures feather touch non-traumatic method of picking up the hair follicle only by its extra cuticle part of hair from the cool isotonic solution and inserting them in the loading slot of suitable size in a device avoiding the drawbacks of grabbing, holding, pinching, dragging, pushing and drying.

### **Detailed Description of the invention**

The device comprises of a solid or hollow elongated structured transplanter of an appropriate length, width, wall thickness and shape longitudinally developing into a slotted groove of an appropriate length, width and shape having a wider slot as a loading/unloading area. This extends to a narrower slot as a retaining area further developing into a wedge shaped structure at its end portion. This wedge may be of appropriate length, width and shape having sharpened edges to enable piercing a substrate for harvesting and/or planting to appropriate depth determined. The penetration can be controlled by a "stopper" located at appropriate positions along the surface of the transplanter. This transplanter optionally has openings of appropriate number, size, shape at appropriate positions along the transplanter having optional

attachment or provision for the attachment to maneuver the transplanter.

The transplanter may further an optional holder/hub so structured at its lower end to enable for attachment with the upper end of the transplanter and the upper end of the holder/hub appropriately structured to fit the optional handle/case.

Further the device is provided with an optional handle so structured at its lower end to enable housing the holder/hub and/or the transplanter during use while the upper end is so structured to accommodate the holder/hub and/or the transplanter when placed inside the handle to function as a case for storage during non-use.

The transplanter may have optional number of openings of various sizes and shapes at appropriate positions along the transplanter to function as release for any "air lock" created during transplantation.

The shape of the loading area ensures smooth loading, unloading and movement of the planting material along the transplanter for subsequent operations. It is to be noted that the width of the groove at retaining area is such that it does not allow the planting substance to pop out from the groove at the same time allows easy passage of the sliding device with planting material to and from the loading area to the wedge. Further the edges of the wedge of transplanter are sharp and tapered in a manner to allow easy passage of planter into the substrate with rotation and further during harvesting it enables the creation of circumferential cut around the hair follicle and during plantation it enables the creation of an appropriate site for the transplanting operations by maintaining the opening of the cavity stretched and walls of the cavity dilated/separated to facilitate the easy insertion of the plantable material into the created site with the help of a sliding device. Also the "stopper" arrangement is created as an integral part of the groove or along the common surface of the groove and/or the wedge of the transplanter.

## Question 2

A client meets you and provides you with information below. Please use the said information to write a complete patent specification ready to be filed before the Indian Patent Office.

"The invention relates to an aqueous solution for cleaning contact lenses comprising a water-soluble peroxide, transition metal salts and a surfactant. Below are the details:

### Invention:

1. The solution is a combination of:
  - i) a water-soluble peroxide
  - ii) a catalytic amount of a water soluble transition metal catalyst in the form of an inorganic or organic salt
  - iii) a coco-hydrolyzed animal protein anionic surfactant.

15 —  
10 —  
3 2

2. The invention works best when the above solution is made in the following proportion:

- i) 0.1% to 15% by weight/volume (w/v) of peroxide
- ii) 0.25 micromoles to 0.25 millimoles per deciliter of metal catalyst
- iii) 0.1% to 20% (w/v) of surfactant

and water in a quantity sufficient to make volume.

3. The solution need not be sold as it is. Rather, to ensure that it is stable and lasts longer, it can be divided into two separate portions of specific proportions. These two portions can be sold in one package to the consumer who can combine the separate portions at his end to get the solution. The two portions should be as below:

- i) a granular or aqueous peroxide
- ii) an aqueous solution consisting of a catalytic amount of water soluble transition metal catalyst in the form of an inorganic or organic salt AND a coco-hydrolyzed animal protein anionic surfactant.

4. The invention in 3 above works best when: one package contains a granular peroxide or an aqueous peroxide solution having a concentration of 0.2% to 30% (w/v) and the second package contains 0.25 micromoles to 0.50 millimoles per deciliter of said metal; 0.1% to 40% (w/v) of said surfactant; and water in a quantity sufficient to make volume.

5. A process for cleaning contact lenses containing all the steps above.

### **Background to Invention**

This invention relates to solution for cleaning plastic contact lens materials. Specifically it relates to aqueous solutions comprising a water-soluble peroxide, a catalytic amount of a transition metal salt, a surfactant. These solutions effectively clean hard, flexible and soft hydrogel contact lenses.

Because of the environment in which contact lenses are handled and employed, a wide variety of materials may adhere to lenses. During wear, lenses are subjected to proteinaceous materials, particularly mucoproteins; and lipids such as sterols, waxes, and glycerides. In addition to these naturally occurring materials, cosmetics, greases from the hands and dusts and other airborne and environmental materials can all act to form a strongly adhering lens coating.

Proteinaceous materials constitute the major amount of lens soils. They can also be difficult to remove completely and efficiently from plastic lens materials, particularly in the instance of hydrophilic hydrogel materials which can readily absorb mucoproteins. If lenses are not properly cleaned these proteinaceous materials and other soils can build up to a point where wearer comfort is affected, lens spectral characteristics are affected or sterilization becomes difficult.

Hydrogel polymers and other soft flexible lens materials cannot be mechanically scrubbed because they are easily torn or scratched. Therefore some non-mechanical means must be used to remove soil accretions.

Additionally, lenses must be sterilized to prevent transmission of pathogenic agents onto the eye. Certain lens polymers, particularly hydrogels, cannot be chemically sterilized because they absorb antimicrobial drugs which are also eye irritants, so alternative sterilization techniques such as heat in the form of boiling water or steam are often used. High temperatures don't clean lenses and in fact tend to accelerate lens soil buildup by precipitating absorbed proteinaceous materials. Sterile saline solutions have little if any effect on soil removal so some additional cleaning procedure is required. Peroxides alone are adequate disinfectants but do not adequately remove lens soils, particularly non-polar materials.

It is therefore desirable to find a simple and efficient one step procedure for cleaning contact lenses which will ensure the removal of all soils, especially proteinaceous material. The procedure should be usable with all contact lenses. The method should be effective over a relatively short period of time, certainly not longer than overnight, and should be safe to the user and provide a clean lens which may be readily rinsed and safe for introduction into the eye thereafter without further treatment.

#### **Prior Art**

Patents X and Y disclose lens-cleansing solutions that consist of different kinds of peroxides."

.....END.....