NALSAR PROXIMATE EDUCATION
NALSAR UNIVERSITY OF LAW, HYDERABAD
P.G.DIPLOMA IN PATENTS LAW

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Paper II – Practical
(Exploitation of Patents – Drafting, Specification & Patent Writing)

Time: 2 ½ hours. **TOTAL MARKS: 100**

INSTRUCTIONS TO CANDIDATES

1. **The question paper to be interpreted as given and no clarification can be sought from the invigilator.**
2. **Attempt only one choice – either A or B**
3. **Answers in illegible handwriting will not be taken into consideration.**

You are required to draft a complete specification containing; a.) Title of the Patent b.) Background of the Invention c). Summary of the Invention d.) Claims e.) Abstract of the invention. (Do not write a detailed description or draw figures.)

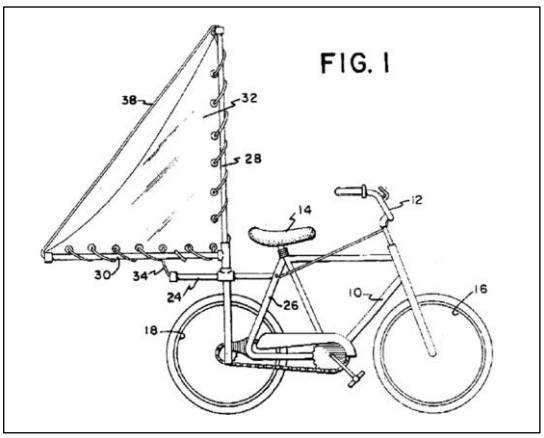
The Claims in the patent draft carries <u>50 marks</u> and remaining specification carries <u>50 marks</u>.

<u>Option A</u>

Your client, Mr Vladimir has devised a modified bicycle, which can also use the power of wind as in the case of sail boots. Boats which harness wind to provide motive power have been used for centuries. Vehicles having runners secured to their bottom surfaces and having sails have utilized wind to cause the vehicles skate over surfaces of solid ice. However, while wheeled bicycles have been powered by human operators or by detachable motors, no one prior has succeeded to devising apparatus including a sail attachment connectable to a bicycle for harnessing wind to drive a bicycle forward in a controlled manner.

The invention can be better understood with the help of the following figures.

FIG. 1 is a side view of the attachment as secured to a bicycle.
FIG. 2 is a detail front view of the handle bars of the bicycle showing connections to lines of the attachment operable by a rider of the bicycle.
FIG. 3 is a detail view of the top of the mast as connected to the sail.
FIG. 4 is a detail rear view of the structure shown in FIG. 1.



Referring now to FIGS. 1-4, a bicycle 10 has a frame with front mounted handle bars 12 and a rear mounted seat 14. The bicycle has front and rear wheels 16 and 18 secured thereto, the front wheel 16 extending in front of the handle bars, the rear wheel 18 extending rearward from the seat, each wheel having a corresponding axle 21 extending therethrough, Rear wheel has a tire 44 and a spoke 46.

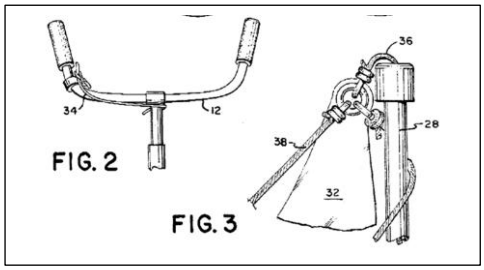


FIG. 2

FIG. 3

A sail attachment which when connected to the bicycle harnesses wind to drive the bicycle forward. The attachment includes a U shaped member having two downwardly extending legs 20 and an upper horizontal element 22 extending between the legs. The lower ends of the legs are securable non-rotatably to the rear wheel axle.

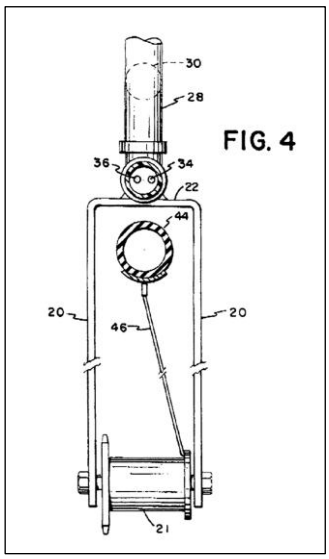


FIG. 4

A horizontal hollow tube 24 open at both ends is secured to element 20 and extends at right angles thereto. One end of the tube is secured to a seat support 26 to provide a stabilizing action to prevent vibration of the attachment when in use.

A vertical hollow mast 28 is secured to the tube and extends upwards therefrom.

A horizontal boom 30 is secured at one end to the mast adjacent the upper end of the mast. The boom and mast support a rectangularly shaped sail 32. The sail has an elongated vertical leg secured rotatably to the mast and a short horizontal leg secured rotatably to the boom.

A boom haul 38 extends along the hypotenuse of the sail and is spaced therefrom. The boom haul is connected between the other end of the boom and the upper end of the mast. A first line 34 has a free end releasably connectable to the handle bars and extends through the tube for connection to the boom. The rider of the bicycle uses the line to manipulate the boom.

A second line 36 has a free end releasably connectable to the underside of the bicycle seat and extends through the tube and up the mast for connection to the sail so that the rider can raise or lower the sail.

In accordance with the principles of this invention, apparatus is provided which is detachably connectable to a bicycle. The bicycle has a frame with front mounted handle means and rear mounted seat means. The bicycle has front and rear wheels secured thereto, the front wheel extending in front of the handle means, the rear wheel extending rearward from the seat means. Each wheel has a corresponding axle extending therethrough.

The apparatus includes a sail attachment which when connected to the bicycle harnesses wind to drive the bicycle forward. The attachment is adapted to fit on the rear of the bicycle above the rear wheel and securable to the seat means.

The apparatus employs a U shaped member having two downwardly extending legs and an upper horizontal element extending therebetween. The legs are securable non-rotatably to the rear wheel axle. A horizontal hollow tube open at both ends is secured to said element, said tube being disposed at right angles to said element. A vertical hollow mast is secured to the tube and extends upwards therefrom. A horizontal boom is secured at one end to the mast adjacent the lower end of the mast. A rectangularly shaped sail having an elongated vertical leg is secured rotatably to the mast and a short horizontal leg secured rotatably to the boom. A boom haul extends along the hypotenuse of the sail and is spaced therefrom, the boom haul being connected between the other end of the boom and the upper end of the mast.

When the attachment is attached to the bicycle, its sail can harness wind 45 degrees from either the left or right side of the bicycle, 90 degrees from either the side of the bicycle and at the rear of the bicycle to power the bicycle at speeds much faster that can be obtained when the bicycle is ridden in conventional manner.

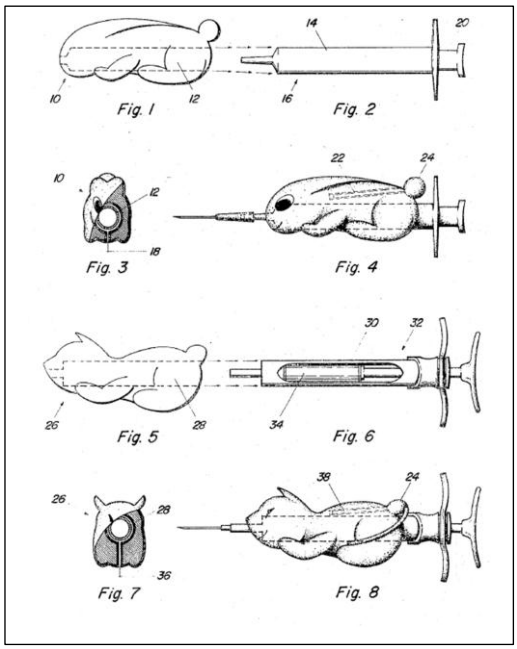
Option B

Your client, Dr Robert a dentist by profession has come out with an unique syringe to counter fear and apprehension of injections, particularly prevalent among children.

Disposable plastic syringes are, being used more and more by the medical profession because such syringes are used only once and discarded, thereby avoiding the time and expense of reserializing required for conventional syringes. Nevertheless, patients still be afraid and apprehension of a hypodermic syringe regardless of whether the syringe is of a disposable type or conventional type. Such fear and apprehension are particularly prevalent among children. As physicians and dentists well· know, it is important to prevent fear of injections by hypodermic syringes on the part of patients, especially children. Preventing such fear or apprehension will elevate the standards and quality of work of the medical and dental fields, thereby improving the overall health standards of our nation.

These and other objects will be more readily understood in conjunction with the accompanying drawings, in which -
FIG. 1 is a side elevational view of an attachment in the form of an animal shape for a conventional casing or barrel of hypodermic syringe.
FIG. 2 is a conventional hypodermic syringe.
FIG. 3 is a front elevational view of FIG. 1 partly cut away to show the detail of FIG. 1.
FIG. 4 is a side elevational view of the attachment of FIG. 1 in place on the hypodermic syringe of FIG. 2.
FIG. 5 is a side elevational view of an attachment in the form of an animal shape for the barrel of a conventional metallic syringe of the type using a cartridge filled with medication.
FIG. 6 is a conventional metallic syringe of the type using a cartridge filled with medication.
FIG. 7 is a front elevational view of FIG. 5 partly cut away to show the detail of FIG. 5.
FIG. 8 is a side elevational view of ,the attachment of FIG. 5 in ,place on ,the metallic hypodermic syringe of FIG.6.
FIG. 9 is a front elevationa:1 view of a disposable syringe casing or barrel formed into an animal shape.
FIG. 10 is a side elevational view of FIG. 9 with a plunger inserted and needle attached.

FIG. 11 is a plan view of FIG. 10.



With reference to the drawings, the attachment 10 in FIG. 1 has a longitudinal :bore 12 registerable with the outer •circumference of the casing or barrel 14 of the syringe 16, and has an outer circumference formed into an attractive animal shape ,as shown in FIG. 1. The at-tachment 10 may have other animal shapes and may also be formed into the shape of any object ,pleasing to chil-dren. The ,attachment 10 is maintained in position on the barrel 14 by friction fit and may be made from any suitable material such as various p1astics, rubber, metals, or glass, having the required qualities. The attachment 10 may be provided with a longitudinal slot 18 in its base extending up to the bore 12 which permits expansion of the bore 12 to fit any size circumference of conventional syringes.

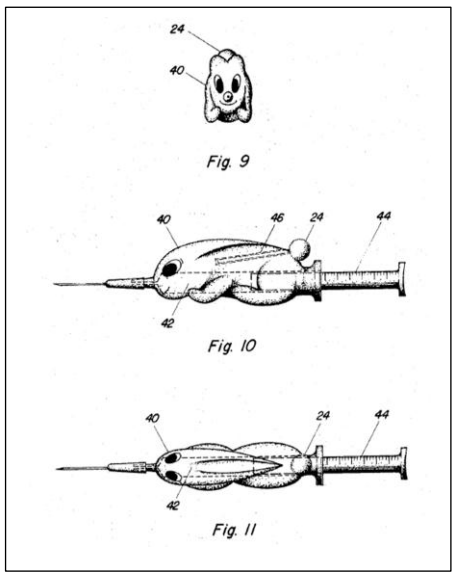
The attachment 10 may be made of clear or opaque material. When an opaque material is used, the plunger 20 of the syringe 16 should be calibrated instead of the barrel 14 to permit volume measurements of the amount of medication to be administered to the patient. The at attachment 10 may be provided with a longitudinal cavity 22 shaped to receive a stick member,. made of wood or other suitable material, having its outer end covered with an absorbent swab, such as cotton or the like, which is commonly referred to as a Q-tip The Q-tip may r may not serve as part of the 24. shape of the 24 object or animal as desired.

The attachment 10 may be formed into a single unitary piece, or it may be made from several pieces assembled or joined together in various conventional manners. For example, the attachment 10 may be made from two sections or halves which are clamped together around the barrel 14 of the syringe 16, with or without the longitudinal slot 18 in the base.

Similarly, the attachment in FIG. 5 has a longitudinal bore 28 registerable with the outer· circumference of the barrel 30 of the metallic syringe 32 of the type· using a cartridge or carpule 34 filled with medication. The outer circumference of the attachment 26 is formed in the shape of .an animal pleasing to children. The attachment 26 may be formed in other animal shapes or in the shape of any object pleasing to children. The attachment 26 is maintained in position on the barrel 30 by friction fit .and may be made of any suitable material such as various plastics, rubber, metals, or glass, having the required qualities. The attachment 26 may be provided with a longitudinal slot 36 in its base extending up to the bore 28 which permits expansion of the bore 28 to fit other standard sizes of metallic syringes of the carpule type.

Since the metallic type syringe 32 generally uses a carpule 34.having a measured volume of medication to be ad- ministered, whether the attachment 26 is made of clear or opaque material should make no difference in use, in contrast to the first mentioned type syringe. Like attachment 10, however, attachment 26 may be provided with a longitudinal cavity 38 shaped to receive a Q-tip 24, which may or may not serve as part of the shape of an object or animal as desired.

Just as the attachment 10, the attachment 26 may be formed into a single unitary piece, or it may be made from several pieces assembled or joined together in various conventional manners. Also, the attachment 26 may be made with or without the longitudinal slot 36.



With reference to the disposable type hypodermic syringe illustrated in FIGS. 9, 10, and 11, the barrel 40 of such a syringe is itself formed into the appearance of a pleasing animal shape, while maintaining an interior bore 42 registerable with the outer circumference of the plunger 44. It is of course obvious that any type of ob-ject or animal attractive to children may be employed.

Any suitable material may be used to make the animal shaped barrel 40, such as plastics, rubber, metals, or glass, having the required qualities. The animal-shaped barrel 40 may be made of clear or opaque material, although when the materials used to construct the animal-shaped barrel 40 are opaque, the plunger 44 should be calibrated instead of the barrel to permit volume measurements of medication to be administered. to construct the animal-shaped barrel 40 are sufficiently clear calibrations of volume of medication to be administered may be made on the inside wall of the bore 42, or on the plunger 44.

The barrel 40 may also be provided with a longitudinal cavity 46 shaped to receive a Q-tip 24 as previously de-scribed, which may or may not serve as part of the shape of the object or animal as desired.

In the operation of my invention various methods of use may be employed. For example, the disposable type syringe illustrated in FIGS. 9, 10 and 11, may be used in a dental office. Where the patient is a child or an ex-tremely apprehensive adult, the disposable syringe having a barrel formed in a pleasing shape, such as a rabbit or other attractive object, is shown to the patient. The child's attention is directed to the bunny-shaped syringe barrel as well as the Q-tip 24 where the Q-tip is part of the tail of the rabbit.

The Q-tip 24 is then removed and the child is told that the bunny's tail will be applied to the particular area of the child's gum intended to be injected. The Q-tip 24 is dipped into a topical anaesthetic solution and then ap-plied to the child's gum to deaden pair sensitivity to the forthcoming injection.

Meanwhile, the dentist or his nurse fills the syringe with medication. While keeping the child's attention on bunnies and speaking to the child in a soft tone, the dentist tells the child that the bunny will touch or "kiss" the child's gum and make the gum feel funny and go to sleep. Then the dentist injects the mediation. Thereafter, the child is told that he may have the animal-shaped barrel after it is cleansed, with a new Q-tip inserted, as a token for being a good patient, or being a big boy or girl. Except for the animal-shaped barrel, the remaining parts of the disposable type syringe are discarded.