C. E. BINGMAN.

DEVICE FOR REMOVING FOREIGN BODIES FROM THE EYE.

APPLICATION FILED OCT. 20, 1920.

1,386,309. Patented Aug. 2, 1921.

FIG. 1.

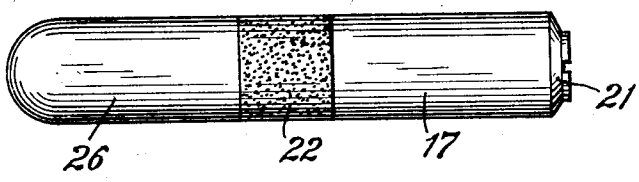


FIG. 2.

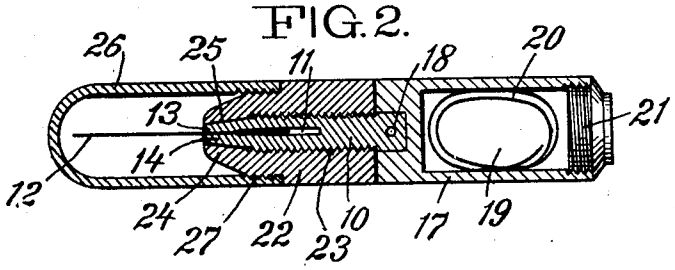


FIG. 3.

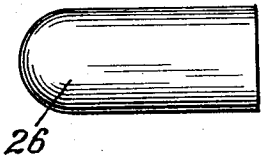


FIG. 4.

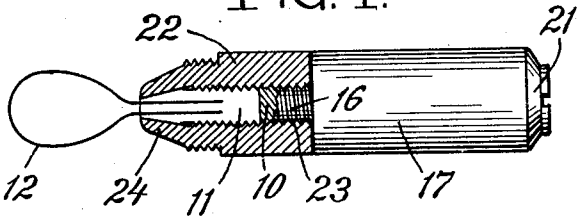


FIG. 6.

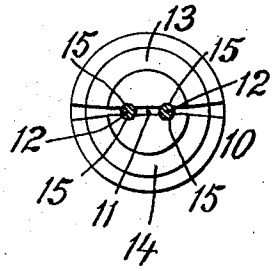
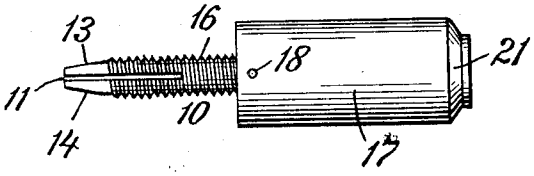


FIG. 5.



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DEVICE FOR REMOVING FOREIGN BODIES FROM THE EYE.

1,386,309. Specification of Letters Patent. Patented Aug. 2, 1921.

Application filed October 20, 1920. Serial No. 418,227.

To all whom it may concern:

Be it known that I, CARROLL EDWARD BINGMAN, a citizen of the United States of America, and residing in the city of Washington, District of Columbia, have invented a new and useful Device for Removing Foreign Bodies from the Eye, of which the following is a specification.

This invention relates specifically to an instrument which is adapted to remove foreign particles from the eye, that is to say, between the eye ball and the upper or lower lid; it can be employed with equal facility where the particle is simply resting upon the eye ball (whether it is imprisoned by the lid or not) and it is likewise equally efficacious when the particle has become partly embedded in the eye ball.

The invention consists in providing a curved filament, or loop, the ends of which are properly secured, and which, by virtue of the material employed in the filament, enables the structure to assume the proper form.

In order to more particularly explain my invention I will describe it in connection with the accompanying drawings which form a part of this specification.

Referring to these drawings, Figure 1, represents an exterior view of the implement to a large scale.

Fig. 2, is a longitudinal section of same on the same scale.

Fig. 3, is an exterior view of the loop cover.

Fig. 4, is a detail view of the loop holder casing.

Fig. 5, is the loop holder.

Fig. 6, is an end view of the loop holder.

In these drawings, 10 represents the main central member of my implement cut down centrally and longitudinally, two thirds of its length as shown at 11; this cut away portion 11, provides the requisite channel for the proper introduction of the filament 12. At 13, 14, are jaws and the member 10, being of resilient material such as red fiber, or any other suitable substance, they can be pressed toward each other for the purpose of firmly retaining the filament in their grasp.

Referring to Fig. 7, I show receptacles 15, cut in the faces of the jaws 13 and 14 and in which the ends of the filament are positioned so that when the jaws are forced tightly together (see Fig. 2) the filament is firmly locked in the face of the jaws as shown in Fig. 7.

The outer end of the jaws 13 and 14 are wedge shaped and the main body back of these wedge shaped members is a screw fitting, as shown at 16, and the rear end of the main central member 10, is provided with a casing 17, the two parts 10 and 17 being fixedly secured to each other at 18. The casing 17 is provided with a receptacle storage place 19 for an extra filament 20, (see Fig. 2) which can be removed and employed when desired by taking off the screw cover 21.

At 22 is a barrel whose exterior surface is roughtened to provide grasping facilities for a thumb and finger and this barrel is interiorly threaded at 23 to receive the register with the exterior thread of the member 10; the outer end or nose piece 24 having an interiorly positioned wedge 25 complementary to the wedges 13 and 14 of the main member 10. The proposition being that as the member 11 is screwed into the part 22 and is advanced to a point just short of the position shown in Fig. 2 the slanting faces 14 and 15 of the jaws will come in contact with the slanting face 25 of the member 22 and thereupon the jaws will begin to close but it is to be understood that before they begin to close the ends of the filament 12 are introduced into the openings 15 and a further advance of the parts to the position shown in Fig. 2 will result in the firm interlocking the main filament member 10 and the part 22.

I provide also a thimble 26 which constitutes an outer cover and protects the filament when not in use.

The screw threads 27, provide means of attachment to the part 22.

When it is desired to use this implement, the thimble 26 is removed and the filament is placed flatwise against the ball of the eye and between the ball of the eye and the eye lid and moved longitudinally across the surface of the eye ball which action will result in the removal of any foreign particles either upon the surface of the ball or the surface of the eye lid and the instrument works with equal facility, whether the obstacle or foreign body is in contact with the upper or lower lid.

It is understood that the filament is so delicate and so free from any possibility of

scratching that it will move across the membrane without harm and at the same time it is of sufficient size to seize upon the obstacle and carry it away.

In the employment of this invention I have used horse hair and prefer this to any other filament. Also in the material employed, I use either red fiber for the main member 10 or I can use vulcanized rubber or other suitable materials, and for the other part of the instrument I generally use vulcanized rubber.

Having thus described my invention the following is what I claim as new and useful therein and desire to secure by Letters Patent,

An instrument of the character described embodying a centrally positioned fibrous member having a central longitudinal channel extending the greater portion of its length providing two filament grasping jaws, complementary receptacles cut part way into the faces of the jaws to form seats for the ends of the filaments a barrel arranged upon the exterior of the jaws and means for tightening the jaws together and forcing the ends of the filaments down upon the seats.

CARROLL EDWARD BINGMAN.