

(No Model.)

H. McDOUGALL.
DEVICE FOR SECURING EYEGLASSES.

No. 529,402.

Patented Nov. 20, 1894.

Fig. I.

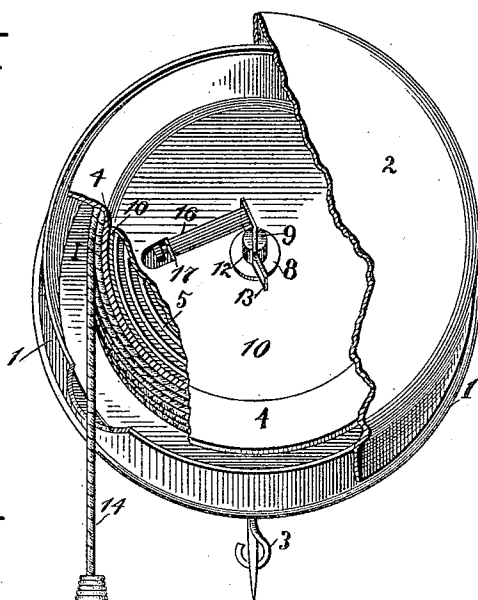


Fig. II.

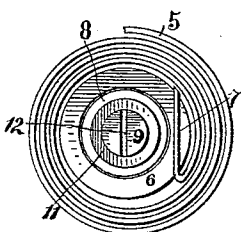


Fig. III.

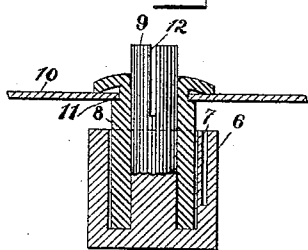
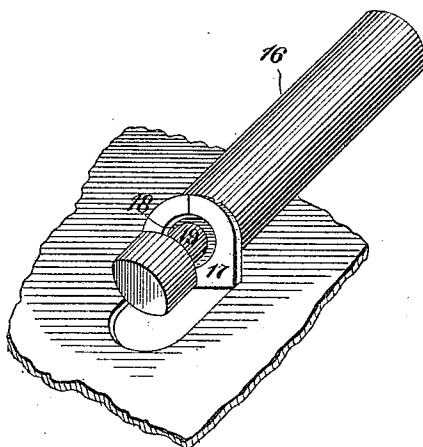


Fig. IV.



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DEVICE FOR SECURING EYEGLASSES.

SPECIFICATION forming part of Letters Patent No. 529,402, dated November 20, 1894.

Application filed April 9, 1894. Serial No. 506,901. (No model.)

To all whom it may concern:

Be it known that I, HUGH McDOUGALL, a citizen of the United States, residing at Brooklyn, county of Kings, State of New York, have invented a new and useful Device for Securing Eyeglasses, of which the following is a specification.

A customary convenient means for attaching eye glasses to the clothing of the wearer is by means of a tape or cord carried by a spring reel which is adapted to pay out the cord at will or to instantly retract it and draw the eye-glasses up out of the way when released by the hand. A gravity-pawl is generally used for stopping the reel and this and other parts have been of rather crude construction, so that the device was noisy and imperfect in operation, and, especially, it lacked sensitiveness in responding to the movement of the operator's hand, whether it be in stopping or starting the winding or unwinding of the cord.

My improvements have in view certain improvements in the mechanism tending to improve the ease of running of the reel and the sensitiveness of the pawl in responding to the movements of the operator's hand.

Referring to the accompanying drawings which form a part of this specification:—
Figure I is a perspective view, to an enlarged scale, partly broken away of my improved device for securing eye glasses. Fig. II is a top view to a still larger scale of the reel bearing. Fig. III is a sectional view of the same. Fig. IV is a detached perspective view of the pawl.

The case of my improved attachment is made up of the back 1 and cover 2 and to the back is secured a safety pin 3 which enables the fastening of the device to the coat or other garment. Within the case is a reel 4 having a spiral spring 5 one end of which is fastened to a post 6 by means of a slit 7 therein while the other end is fixed to the reel. The post 6 has an annular chamber within it which is occupied by a sleeve 8 adapted to rotate on the stud 9 which is formed integral with, or fastened rigidly to, the post 6 at bottom. The reel 4 is mounted on the sleeve 8, its upper plate 10 seating against the shoulder 11 thereof and then being fixed by upsetting the part of the sleeve 8 above said shoulder.

The stud 9 is split as shown at 12 to receive a short key or plate 13 which is then held by pinching the split end of the post. The plate 13 then acts to hold the reel and its sleeve 8 on the stud 9 as well as acting as a stop for the pawl as hereinafter set forth. This construction of the post, its stud and the sleeve thereon affords a long bearing for the reel insuring its easy and noiseless running. To the reel is fixed the cord or tape 14 having a suitable hook 15 for the eye-glass. On the plate 10 of the reel I mount the pawl 16 which I make in the shape of a roller as shown. I turn up from the plate 10, a lip 17 which is punched with a hole as shown at 18 in Fig. IV sufficiently large to allow the neck 19 of the roller 16 to run and twist freely therein. The neck of the roller is inserted in this bearing by splitting the top of the lip 17 which then allows the neck of the roller to be slipped into place and is subsequently brought back to the original shape as shown in Fig. IV.

In practice, the attachment is fastened to the coat or other garment by pin 3 and the eye-glasses are attached by hook 15. By drawing down the eye-glasses, the reel 4 is rotated from right to left, winding up spring 5. The roller pawl 16 being allowed slight freedom of movement in the neck of lip 17, it will slip freely past the stop 13. If now the hand of the wearer be stopped and the reel be allowed to again slowly revolve from left to right, carrying with it the pawl 16, the latter will come against stop 13 as shown in Fig. I and the further operation of the reel will cease; but if the cord be first drawn out slightly so as to free pawl 16 from the stop 13 and then suddenly let go so as to release the reel to the full action of the spring, the centrifugal force of the rapid revolving reel will throw the pawl so that in its motion from left to right it will clear stop 13 and allow the cord to be completely wound on the reel.

The advantage of the roller form of pawl is that it responds very delicately to any movement of the operator's hand. It is not apt to stick but will roll down in position against the stop plate or key 13 as soon as it passes beyond the stop.

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

1. In a device for securing eye glasses, the combination of the casing 1, 2, post 6 fixed to said casing and having a central stud 9 and an annular chamber surrounding said stud, 5 a reel, a sleeve 8 fastened to said reel and having bearing on said stud 9 in said chamber, and means of retaining said sleeve upon said stud, substantially as set forth.

2. In a device for securing eye-glasses, the 10 combination of a casing 1, 2, a spring actuated reel having a central bearing in said casing, a stop plate and a roller-formed pawl and means for attaching one end of said pawl near the periphery of said reel and allowing

no endwise movement while permitting it to 15 vibrate and to rotate, substantially as set forth.

3. The combination in a device for securing eye glasses of the post having fixed stop or plate 13, the spring reel 4 having plate or 20 disk 10 provided with lip 17 and the roller pawl 16 having a neck engaging said lip and arranged to operate, substantially as set forth.

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Witnesses:

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