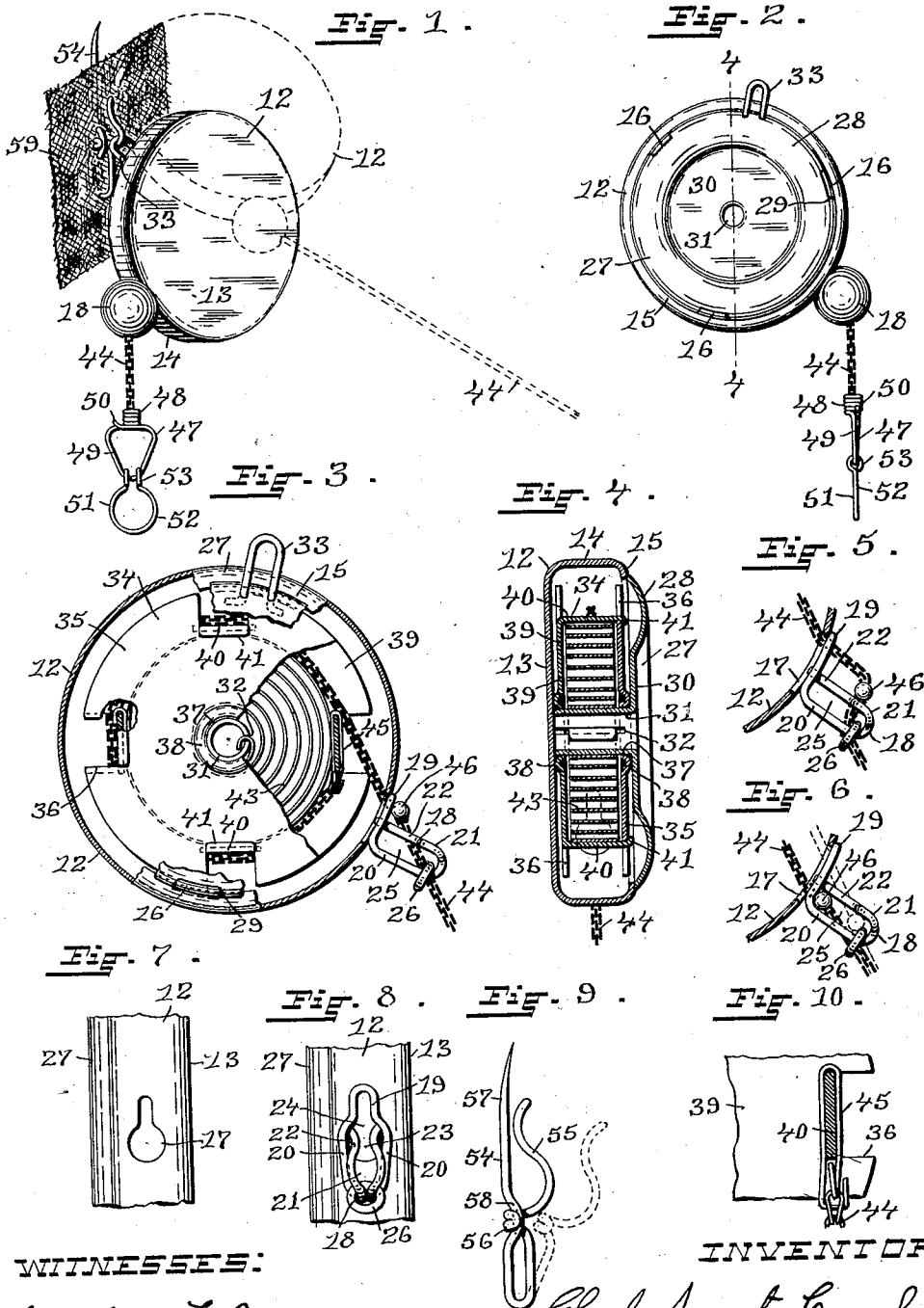


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 HOLDER REEL.
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HOLDER-REEL.

1,023,816.

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To all whom it may concern:

Be it known that I, CHARLES AUGUSTUS COGGESHALL, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Holder-Reels, of which the following is a specification.

Holder-reels and similar devices as heretofore constructed usually consist of a spring-actuated reel within a case, the case being attached to the clothing by a catch-pin fastened rigidly to the back of the case; the reel, actuated by a helical spring, winding or unwinding, at the will of the wearer, a cord or chain, one end of the same being fastened to the reel and the other end holding the article to be secured, the cord or chain being checked or released in winding or unwinding by means of a so-called gravity pawl. This device in varied forms has been always more or less unsatisfactory. It has been impossible to secure absolute certainty in the operation with regard to both the checking and releasing of the chain. The pawl mechanism has no certainty of action; it sometimes operates when and as required, and sometimes fails to operate. It is also liable and does at times operate when not desired, as, for instance, when the entire chain should reel up and it is checked or held at some intermediate point. With the catch-pin fastened rigidly to the back of the case the holder-reel must remain in whatever position it is pinned to the clothing; hence the chain can be pulled in but one direction and avoid undue friction on the chain; also the holder-reel must be secured to the clothing in the one position it is intended to be secured in order for the gravity pawl to operate at all; and the spring being exposed on one side of the reel has considerable friction on the inside of the casing so that the friction retards the free action of the reel.

The object of my invention is to improve the construction of a holder-reel adapted to be attached to wearing apparel for the purpose of retractively holding or securing to the person eyeglasses or other articles, whereby an absolute certainty of operation is obtained and the article may be more perfectly positioned for use according to the requirements of the wearer.

Another object of my invention is to con-

struct a holder-reel so that the same may be detachably secured to the person in any one of innumerable positions without affecting the practical operation of the holder-reel.

Another object of my invention is to construct a holder-reel so that the same when attached or in use may automatically assume innumerable different positions without affecting the absolute certainty of operation of the holder-reel.

Another object of my invention is to provide a holder-reel so constructed that the cord or chain to which the article is attached may be pulled out in any required direction without affecting the certainty of operation of the holder-reel or bringing undue friction on the cord or chain.

Another object of my invention is to eliminate the so-called gravity pawl in the construction of a holder-reel.

Another object of my invention is to provide a holder-reel so constructed that the holder-reel is detachably secured to a catch-pin so that the holder-reel-case and contents may move in any direction corresponding to the pull of the chain or cord, and the catch-pin may be detachably secured to wearing apparel.

A final object of my invention is to simplify the construction of a holder-reel and its co-acting parts thereby reducing the cost of manufacturing the same.

Figure 1 is an enlarged perspective view of the holder-reel showing the same in one position in full lines, and in one of the innumerable positions it may assume, in broken lines. Fig. 2 is a back view of the holder-reel. Fig. 3 is a still further enlarged back view of the holder-reel, partly in section. Fig. 4 is an enlarged sectional view taken on line 4, 4, of Fig. 2, through the holder-reel. Figs. 5 and 6 are enlarged detail views of the check operating device illustrating the operation of the same. Fig. 7 is an enlarged detail view of part of the casing showing the check operating device removed and the key-hole opening in the casing. Fig. 8 is an enlarged detail view looking at the check operating device from the right and in the position as shown in Fig. 3. Fig. 9 is an enlarged side view of the catch-pin showing the same closed in full lines and open in broken lines. Fig. 10 is an enlarged detail view of part of the reel showing the means for detachably se-

curing the inner end of the chain to the reel.

In the drawings 12 indicates a sheet metal casing in the form of a shell having a front 5 13, sides 14, and an inwardly turned edge 15, on the back, forming a circular opening in the back through which the reel is inserted. The edge 15, has the projections 16, 16, and a key-hole opening 17, is formed 10 in the side 14, of the casing, as shown in Fig. 7. A check operating device 18, formed preferably of wire, is first bent to form a key-hole shaped base 19, then bent outwardly at approximately right angles to the 15 base forming arms 20, 20, then over and apart and then toward each other forming an opening 21, then back parallel with the arms 20, 20, forming spaced arms 22, 22, then toward each other forming a narrow 20 space 23, and then the ends are carried down against the inner part of the base 19, forming in the base 19, an opening 24, in front of the arms 22, 22. The arms 20, 20, and the arms 22, 22, form a space 25, between the same, and a ring 26, is secured 25 around the arms 20, 20, at the end as shown in Figs. 3, 5, 6, and 8. The check operating device 18, is secured to the side of the casing over the key-hole opening 17, by solder or 30 other means, and may be in the form of a casting or otherwise constructed. A circular back 27, is constructed of sheet metal shaped to have a raised outer circumference 28, in the periphery of which are 35 notches 29, 29, coinciding with the projections 16, 16, on the back of the casing 12, a central depression 30, and a central inwardly-extending hollow post 31, having a longitudinal slit 32. A wire loop 33, is 40 secured to the back 27, as shown in Fig. 3, by solder or other means. The post 31, is formed preferably integral with the back 27. A reel 34, is constructed of sheet metal to have a back disk 35, with the peripheral 45 openings 36, 36, a central hole 37, for the reel-post 31, and a circular ridge 38, surrounding the hole, a front disk 39, having the cut-out shouldered arms 40, bent at right angles to the disk and forming connecting 50 parts to receive the back disk, which rests on the shoulders on the arms. The ends 41, 41, of the arms 40, are bent inward slightly so that the back disk 35, can be easily sprung or snapped into place and held, 55 and as easily removed. The connecting arms 40, 40, form a base upon which the chain is wound, otherwise the front disk 39 has the same construction as the back disk 35. The circular ridges 38, 38, on the front and 60 back disks stiffen the disks and are the only parts that come into contact with the casing 12, thereby reducing friction. A helical spring 43, having hook-shaped inner and outer ends is inclosed between the disks 65 which form a chamber in which the spring

can operate with a minimum of friction. The inner end of the spring is secured to the post 31, through the slit 32, in the post, and the other end is secured to the reel by hooking the end over an arm 40, as shown 70 in Fig. 3. A chain 44, or its equivalent, is detachably secured at its inner end to the reel by a wire loop 45, which is slipped over one of the arms 40, of the reel and secured 75 to the chain by passing the ends of the wire through the chain and bending the ends of the wire as shown in Fig. 10. An enlargement forming a check 46, is formed on the chain adjacent to its inner end, in any practical way, and a wire holder-hook 47 is 80 secured to the outer end of the chain.

A detachable catch-pin 54, of wire, is shaped to have a hook-shape member 55. When in use the catch-pin 54, is detachably 85 secured to the clothing, a portion 59 of which is shown in Fig. 1, in any position desired. The holder-reel is detachably secured to the catch-pin 54, by passing the loop 33, on the holder-reel over the hook-shape member 55. The holder-reel-case and 90 contents is now free to move in any direction corresponding to the pull of the chain. An outward pull on the chain 44, which extends outward through the check operating device 18, will unwind the chain against 95 the tension of the spring 43. As the chain is pulled outward at a tangent from the reel first through the narrow part of the key-hole opening 17, in the casing and the corresponding part in the base 19, of the 100 check operating device 18, the check 46, on the chain first engages with the under edges of the opening which is too narrow for the check to pass through, and then it slides along until it reaches the larger opening 24, 105 through which it passes at the front of the arms 22. As the check cannot pass between the arms 22, and the operator feels the strike of the check against the arms he immediately allows the chain to relax, when the 110 check takes a position on the base above the narrow part of the opening in the base and holds fast as shown in Fig. 3. To release a pull is given to the chain. The check 46, returns to the front of the arms 22, then 115 slides upward on the arms as shown in Fig. 5, and then through the opening 21, and comes to a stop in the end of the check operating device, as shown in broken lines in Fig. 6, which of course the operator feels. 120 The operator then yields to the pull of the reel and the check returns back through the opening 25, on the inside of the arms 22, and through the openings in the base and casing to the reel, thus allowing the chain 125 to reel up in full. The ring 26, serves as a stop for the check and as a guide for the chain which passes through the ring. When the check operating device is inclosed in a shell as shown in Figs. 1 and 2, the opening 13

in the shell for the chain takes the place of the ring 26, which may then be dispensed with.

It is evident that the construction of my improved holder-reel and its co-acting parts may be varied without materially affecting the spirit of my invention.

Having thus described my invention I claim as new and desire to secure by Letters Patent:—

1. A holder-reel for eye-glasses and the like, comprising a casing having a key-hole opening, a spring actuated reel in the casing, a chain secured at its inner end to the reel and extending out through the key-hole opening on a line with the circumference of the reel, an enlargement on the chain adjacent its inner end and forming a check and a check operating device on the holder-reel over the key-hole opening in the casing adapted to coact with the check on the chain and constructed to have a base in which is a key-hole opening, two arms extending out from the base, an opening, two spaced arms, a narrow space, a space between the arms and a ring secured to the outer portion of the check operating device.

2. A holder-reel for eye-glasses and the like, comprising a casing, a spring actuated reel in the casing, a chain secured to the reel and extending out through an opening in the casing, a check on the chain and a check operating device on the casing, constructed to have a first point of contact for the

check, an opening for the check, a second point of contact for the check, a second opening for the check, a third point of contact for the check and a return opening for the check.

3. A holder-reel for eye-glasses and the like, comprising a casing, a spring actuated reel in the casing, a chain secured to the reel and extending out through a key-hole opening in the casing, a check on the chain and a check operating device on the casing constructed of wire bent to form a key-hole shaped base, then bent outwardly at approximately right angles to the base forming two arms, then over and apart and then toward each other forming an opening, then parallel with the first mentioned arms forming two spaced arms, then toward each other forming a narrow space and then the ends carried down against the inner part of the base, forming in the base an opening in front of the spaced arms, the first mentioned arms and the spaced arms forming a space between the same and a ring secured to the arms at the outer portion of the check operating device.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES AUGUSTUS COGGESHALL.

Witnesses:

ARTHUR P. ANGELL,
CHAS. H. LUTHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."