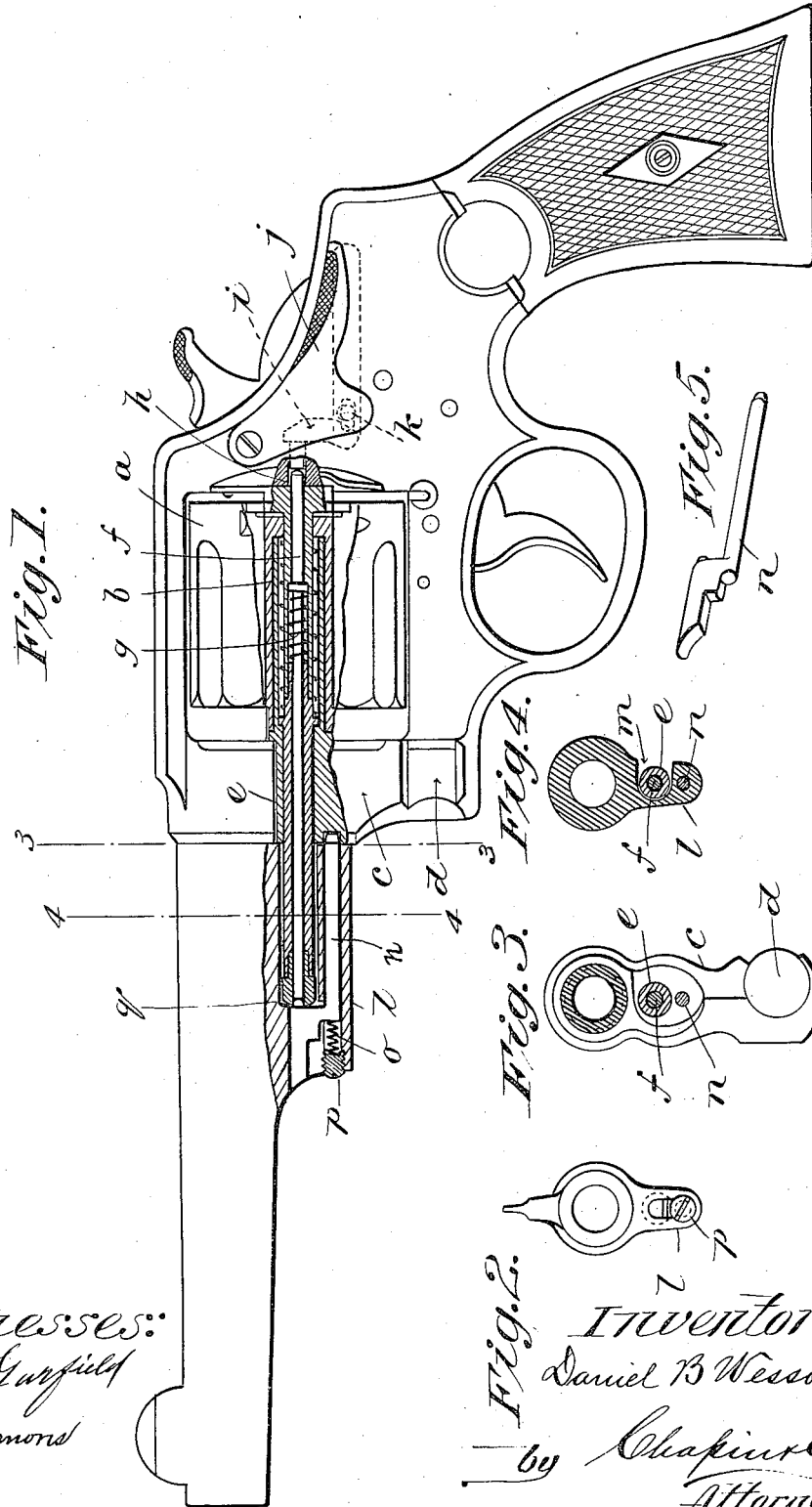


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LOCKING DEVICE FOR CYLINDER YOKES IN REVOLVERS.

(Application filed June 14, 1901.)

(No Model.)



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*Fig. 2.*  
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# UNITED STATES PATENT OFFICE.

DANIEL B. WESSON, OF SPRINGFIELD, MASSACHUSETTS.

## LOCKING DEVICE FOR CYLINDER-YOKES IN REVOLVERS.

SPECIFICATION forming part of Letters Patent No. 688,141, dated December 3, 1901.

Application filed June 14, 1901. Serial No. 64,573. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL B. WESSON, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Locking Devices for Cylinder-Yokes in Revolvers, of which the following is a specification.

This invention relates to revolvers, and has special reference to that class in which the cylinder is hung on a yoke and is adapted to swing into and out of its proper position in the frame to one side or the other of the latter. In this class of revolvers (the yoke being pivotally supported at the forward end thereof only and being locked in firing position only by the engagement with the frame of a pin axially located in the cylinder and projecting from the rear end of the latter) it has been found that the location of this cylinder-locking device so far away from the pivotal point of the yoke permits the forward upper end of the yoke to be sprung sidewise in the frame more or less while the cylinder is locked in firing position. Hence the presence of any substance between the side of the yoke and that part of the frame against which it abuts when the cylinder is swung into position in the frame will permit the rear end of the cylinder to be forced into a position in which its locking-pin will snap into its recess in the frame, while the forward end thereof will, by said obstruction between the yoke and the frame, be prevented from reaching that position which brings the axis of one of its chambers in line with the axis of the barrel.

The object of this invention is to provide means for locking the rear end of the cylinder in the usual manner and at the same time provide means for locking the forward end of the yoke to the frame as near the upper end of the yoke as possible, one operating device common to both of said locking devices being provided, whereby a single movement will release the cylinder and the yoke; and having these ends in view the invention consists in the construction fully described in the following specification and clearly defined in the claims.

In the drawings forming part of this specification, Figure 1 is a side elevation of a revolver embodying my invention, certain parts

being shown in section. Fig. 2 is a front end view of the barrel and of the yoke-locking device. Fig. 3 is a sectional view taken on line 3 3, Fig. 1. Fig. 4 is a sectional view taken on line 4 4, Fig. 1. Fig. 5 is a perspective view of the yoke-locking member.

In carrying my invention into practice the cylinder *a* is carried on a cylinder-pin *b*, which is supported in a swinging yoke *c*, pivoted in the frame at *d*, said yoke and cylinder being capable of swinging sidewise to carry the cylinder into and out of operative relation to the barrel in a manner common to this type of firearm.

There is located within the cylinder-pin *b* an extractor-stem *e*, through which there extends axially thereof a center-pin *f*, one end of which is adapted to engage a recess located in the frame at the rear of the cylinder, said pin being forced into the recess by a spring *g* on the pin when the cylinder is in firing position in the arm. The recess in the frame in which the end of the center-pin *f* enters (which recess is designated by *h*) extends through the wall of the frame, and into the rear end thereof there enters the hose of a sliding lever *i*, which is actuated by a thumb-lever *j*, hung on the side of the frame, and which is connected with said lever by a pin *k*, passing through a slot in the side of the frame. The actuation of the thumb-lever *j* effects the retirement of the end of the center-pin *f* from the recess *h* into the extractor-stem a sufficient distance to permit the cylinder to be swung out of its frame. When the center-pin *f* has been operated to release the cylinder, as stated, the opposite end thereof will be substantially flush with the end of the extractor-stem.

The construction thus far described is substantially the same as that described in my application for Letters Patent of the United States filed May 18, 1901, under Serial No. 60,850, in which application means were described whereby the end of the extractor-stem was locked to the barrel and the rear end of the cylinder locked as usual.

This application covers a construction which operatively is similar to my said prior application, except that in place of a bolt engaging the end of the extractor-stem for the locking of the forward end of the cylinder

the bolt is adapted not only to lock said stem, but also to lock the yoke itself in a manner whereby the utmost rigidity of a locking connection is obtained and which possesses the further advantage of bringing nearer together the locking devices located at opposite ends of the cylinder.

The bolt operated by the center-pin is shown in side elevation in Fig. 1 in its proper relation to the other parts of the arm and in Fig. 5 in perspective view. To provide for the reception of this bolt, the barrel is made with a downwardly-projecting rib *l*. (Shown best in Figs. 1, 2, and 4.) The side of this rib has a groove *m* cut therein, which permits the extractor-stem *e* to swing in under the barrel into its proper place, as shown in said Fig. 4. This groove does not extend quite to the forward end of the rib *l*, and in that portion of the latter beyond the end of the groove *m* a recess is formed to receive the outer end of the bolt, the latter being indicated by *n*. This bolt is slipped in from the forward end of said rib, the long projecting end thereof fitting a hole drilled through the lower part of said rib, the axes of the bolt, the extractor-stem, and the barrel lying in the same vertical plane, and it is unnecessary to add that the bolt is parallel with said stem. The length of the bolt is such that when the forward end thereof is flush with the end of the rib *l* the opposite end thereof will project sufficiently far beyond the opposite end of said rib to enter a suitable hole located in the front edge of the yoke *c* when the latter is swung in against the frame in the position shown in Fig. 3. A spring *o* is located between a shoulder on the bolt *n* and a screw *p*, entered in the forward end of the rib *l*. Located on said bolt *n* there is a short nose *q*, which is adapted to register axially with the center-pin *f* when the cylinder is in firing position in the frame and is adapted to enter the forward end of the hole running through the extractor-stem when room is made therefor by the movement of the center-pin *f* into its recess *h*. By this movement of the bolt, which is effected by the spring *o*, the end thereof which engages the yoke and the said nose *q*, which engages with the end of the extractor-stem, become simultaneously engaged with these parts at the moment the center-pin *f* is entered by its spring *g* into the recess in the frame at the rear end of the cylinder, and by these means the locking of the cylinder is so effectually provided for that it can not by any ordinary means be forced out of line after it is locked, nor can the yoke be swung up into locking position should there be any accumulation of dirt or other obstruction be-

tween the yoke and the frame, for it is obvious that while the rear end of the cylinder might under these conditions be sprung in somewhat it would be impossible to bring the recess in the yoke into alinement with the bolt *n*, and thereby attention would be called to the fact that some obstruction to the free movement of the yoke existed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a revolver, in combination, a side-swinging cylinder-yoke, a cylinder, an extractor-stem in the cylinder extending forwardly of the frame under the barrel, a center-pin having the same length as said stem and located axially therein, a recess in the frame at the rear end of the cylinder for receiving the end of said stem; a longitudinal rib under the barrel near the frame, an endwise-movable bolt in said rib, a recess in the yoke with which the end of said bolt may enter when the cylinder is in firing position; a second projection on said bolt which bears on the end of said center-pin, whereby the movements of the bolt may be governed by the movements of said pin, and means for moving the pin, substantially as described.

2. In a revolver, a yoke having a pivotal connection with the frame, a side-swinging cylinder supported thereon, a longitudinally-movable center-pin axially located in the cylinder for engagement by one end with the frame of the arm when the cylinder is in firing position; an endwise-movable bolt on the barrel for engagement with a recess in said yoke, a projection on the bolt bearing on one end of said center-pin, and a spring for said bolt, whereby the latter is held in contact with the center-pin during the movement of the latter, and means for moving said pin, substantially as described.

3. In a revolver, a side-swinging cylinder, an endwise-movable center-pin therein extending through the cylinder, a recess in the frame at the rear of the cylinder for receiving one end of said pin; a yoke having a pivotal connection with the frame of the arm and supporting said cylinder, and a locking device for said yoke consisting of a bolt supported on the barrel and adapted to engage the yoke when the latter is swung against the frame, and means whereby the movement of the center-pin may effect the actuation of said bolt, substantially as described.

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Witnesses:

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