

No. 748,395.

PATENTED DEC. 29, 1903.

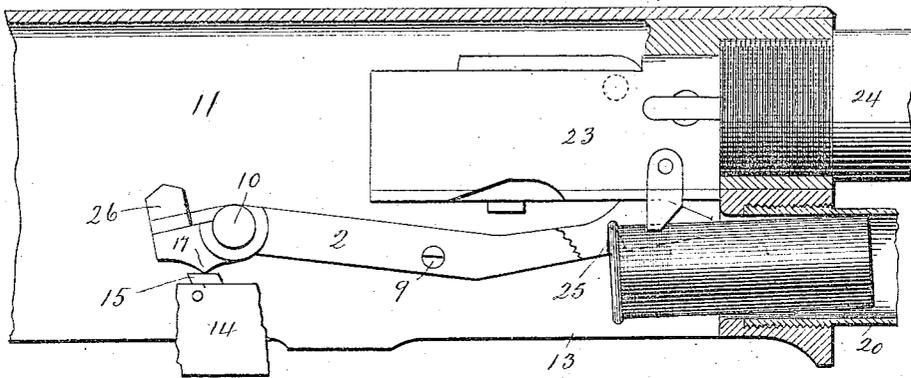
W. MASON & F. F. BURTON.
TUBULAR MAGAZINE FIREARM.

APPLICATION FILED JULY 2, 1903.

NO MODEL.

2 SHEETS--SHEET 1.

Fig. 1



Witnesses
J. H. ...
Class. & ...

William Mason
and Frank F. Burton
Inventors
By *Seymour ...*

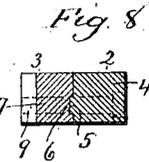
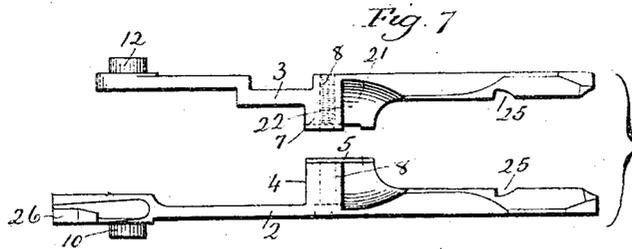
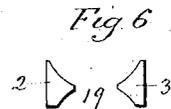
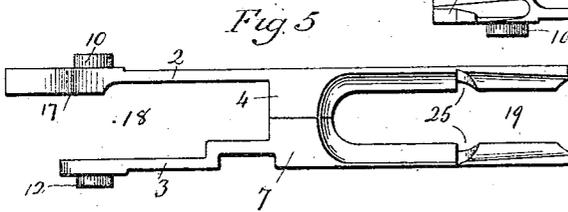
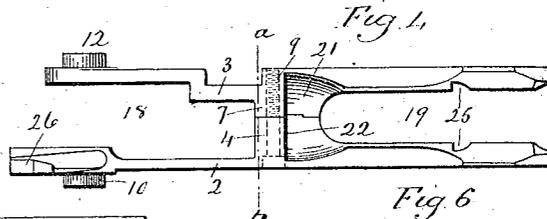
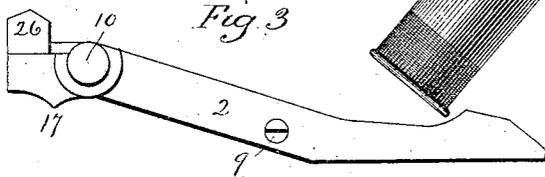
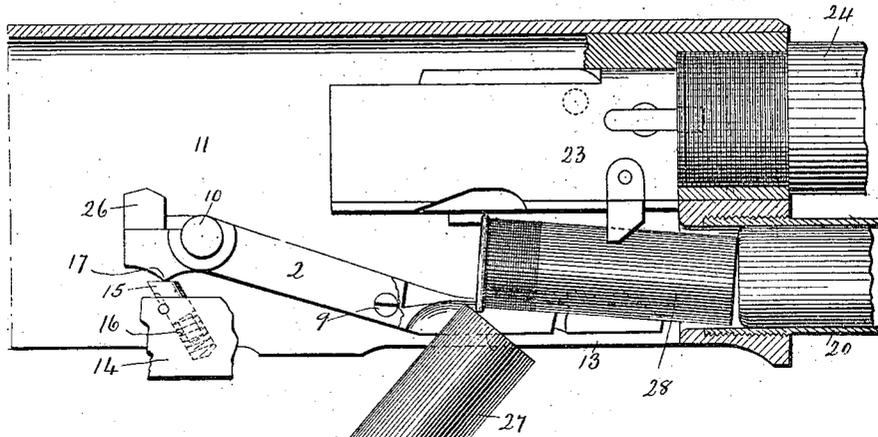
W. MASON & F. F. BURTON.
TUBULAR MAGAZINE FIREARM.

APPLICATION FILED JULY 2, 1903.

NO MODEL.

2 SHEETS—SHEET 2.

Fig 2



Witnessed, 12-
J. H. Shumway
Charles L. Reed.

Fig 9
 12-
William Mason.
and Frank F. Burton
Inventors.
Seymour Clark

UNITED STATES PATENT OFFICE.

WILLIAM MASON AND FRANK F. BURTON, OF NEW HAVEN, CONNECTICUT,
ASSIGNORS TO WINCHESTER REPEATING ARMS CO., OF NEW HAVEN,
CONNECTICUT, A CORPORATION.

TUBULAR-MAGAZINE FIREARM.

SPECIFICATION forming part of Letters Patent No. 748,395, dated December 29, 1903.

Application filed July 2, 1903. Serial No. 164,052. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM MASON and FRANK F. BURTON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Tubular-Magazine Firearms; and we do hereby declare the following, when taken in connection with the accompanying drawings and the numerals of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a broken view, in vertical longitudinal section, of a gun provided with our improved cartridge-carrier, showing the carrier lifted and the head of a cartridge engaged with its loading-shoulder, whereby the carrier is maintained in its elevated or magazine-charging position; Fig. 2, a corresponding view with the carrier shown with a cartridge on it and also showing the insertion of the front end of another cartridge through the loading-opening of the gun and through the finger-opening of the carrier for engagement with the head of the cartridge on the carrier; Fig. 3, a detached view of the carrier in side elevation; Fig. 4, a corresponding plan view of the carrier; Fig. 5, a reverse plan view thereof; Fig. 6, a view of the carrier in front elevation; Fig. 7, a plan view of the carrier with its two parts separated from each other; Fig. 8, a sectional view of the carrier on the line *a b* of Fig. 4; Fig. 9, a detached view, in inside elevation, of the left-hand member of the carrier.

Our invention relates to an improvement in tubular-magazine firearms, with particular reference to pivotal cartridge-carriers therefor, the object being to dispense with the use of an independently-formed pivot for the carrier to facilitate the assemblage of the carrier with the gun and to simplify the loading of the gun.

With these ends in view our invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In carrying out our invention as herein shown we make the carrier in two longitudi-

nal sections instead of in one piece, it being composed of a right-hand member 2 and a left-hand member 3. For coupling these two members rigidly together the right-hand member is formed about midway of its length with an inward extension 4, having a tongue 5 entering a groove 6, formed on the inner face of a corresponding extension 7, extending inwardly from the left-hand member 3 about midway the length thereof. The said extensions 4 and 7 are formed with screw-holes 8; receiving a screw 9, by means of which the two parts are held firmly together with the said tongue entered in to the said groove. By means of the described tongue-and-groove construction the two parts are held from turning on the screw, whereby the two parts are made practically as rigid as though made in one piece. At its rear end the right-hand member 2 is formed with an integral trunnion 10, which enters a trunnion-hole provided for its reception (but not shown) in the inner face of the right-hand wall of the gun-frame 11, while the rear end of the left-hand member 3 is formed with a corresponding integral trunnion 12, adapted to enter a corresponding trunnion-hole, not shown, but formed in the inner face of the left-hand wall of the gun-frame 11. Under this construction we avoid the use of an independently-formed pivot for the carrier to swing upon. Furthermore, by making the carrier in two parts they may be independently introduced into the gun-frame, whereby the cutting away of the same for the introduction of the carrier is reduced to the minimum. The carrier members 2 and 3 are introduced into the gun-frame through the loading-opening 13 in the bottom thereof and their respective trunnions 10 and 12 inserted into the trunnion-holes in the gun-frame. At this time it will be understood only the rear ends of the two parts are within the frame. Then the two members are sufficiently separated or sprung apart to permit the tongue of one to be entered into the groove of the other. When this has been done, the screw 9 is inserted and the two parts screwed solidly together, after which the forward end of the two-part carrier

swung upward into the gun-frame. The guard member 14 of the gun is then combined with the gun-frame 11 in the usual manner. This guard-frame carries a plunger 15, operated by a spring 16, which constitutes the carrier-spring, the beveled upper end of the plunger coacting with a nose 17, formed upon the lower face of the rear end of the right-hand carrier member 2.

The large space 18, formed between the rear ends of the two carrier members, gives clearance to the hammer (not shown) of the gun.

The forward ends of the two members are separated by a long open space 19, which facilitates the loading and unloading of the tubular magazine 20, as will be hereinafter described and which we shall for convenience call the "finger-opening" of the carrier.

The upper face of the carrier is formed about midway of its length with a concave recess 21, the rear wall of which forms a cartridge-stop 22. It may be here explained that when the cartridges are fed rearwardly out of the magazine under the tension of the magazine-spring (which is not shown) they ride over the carrier until their heads engage with the shoulder 22, which limits their rearward movement. When the heads of the cartridges are engaged with this shoulder, the cartridges will when the carrier is elevated into its barrel-loading position be in the right position for their engagement by the lower edge of the forward end of the breech-block 23, which is employed to push the cartridges into the chamber of the gun-barrel 24.

The forward ends of the carrier members are formed in their lower faces with notches 25, the rear walls of which coact in forming a cartridge-loading shoulder. Although these two notches are formed in the respective carrier members, I shall hereinafter speak of them as a "loading-shoulder," inasmuch as they act as one part or feature.

The rear end of the right-hand carrier member is formed with a carrier-elevator 26, constituting no part of our present invention, but fully shown and described in an application filed under date of June 29, 1903, by Thomas C. Johnson and serially numbered 163,630.

It will be unnecessary, in view of the foregoing description, to describe the operation of our improved cartridge-carrier other than to explain the use of its finger-opening 19 and its loading-shoulder 25. To charge the tubular magazine 20 with cartridges, they are fed one by one up through the loading-opening 13 and then manually pushed forward into the magazine against the tension of the magazine-spring. The first cartridge introduced into the gun is brought against the lower face of the forward end of the carrier, which is thus lifted into the position in which it is shown in Fig. 1. This first cartridge is pushed forward a little more than one-half its length into the rear end of the magazine

and until its head is felt to enter the notches 25, forming the loading-shoulder. The power of the magazine-spring is then allowed to assert itself and move the cartridge rearwardly just enough to bring it to a bearing against the loading-shoulder, as clearly shown in Fig. 1. The carrier is thus held up in its elevated position and the cartridge left in position for its engagement by the next cartridge, which takes the place of the first cartridge in being engaged with the carrier, while the first cartridge is pushed clear forward into the magazine. This operation is successively repeated until the magazine has been fully charged, the cartridge-carrier meanwhile being held in its elevated or magazine-loading position by the successive cartridges. Now if a cartridge should be pushed clear forward into the magazine the carrier will be at once depressed by its spring 16, and its depression will be followed by the feeding of the rearmost cartridge out of the magazine and upon the carrier, as shown in Fig. 2. This would block the further loading of the magazine by locking, as it were, the carrier in its depressed position were it not for the provision of the carrier with the finger-opening described. Now in order to force the cartridge on the carrier back into the magazine—the user of the gun by pushing his thumb up into the finger-opening 19 may engage his thumb with the head of the cartridge and push the same forward out of the way into the magazine and at the same time raise the carrier into its magazine-loading position. Then, if desired, the user of the arm may allow this same cartridge to be moved back under the carrier until its head engages with the cartridge-loading shoulder thereof. Instead of using his finger for getting rid of the cartridge on the carrier he may take another cartridge and push that up through the finger-opening 19, as shown by Fig. 2, in which a cartridge 27 is in position to be engaged with a cartridge 28 for forcing the same forward. In case he uses another cartridge in this way he will at the proper time allow the head thereof to be engaged with the loading-shoulder of the carrier, as already explained. In case he desires to unload the magazine, he has only to engage the head of the cartridge on the carrier through the finger-opening thereof by his thumb and force the cartridge forward into the magazine, leaving the carrier free to be pushed upward against the tension of the carrier-spring into its elevated position. The magazine-spring will then act to force the rearmost cartridge outward under the carrier until the head of the cartridge engages with the loading-shoulder of the carrier. The user then uses his thumb again to work the cartridge away from this shoulder, after which it is removed through the loading-opening of the gun. The next cartridge follows and is removed in the same way, and so on. These offices of the finger-opening 19 and the loading-shoulder 25 may also be

brought into play for filling the magazine after some of its cartridges have been fed out and fired. We would therefore have it understood that we do not limit ourselves to the exact construction shown, but hold ourselves at liberty to make such departures therefrom as fairly fall within the spirit and scope of our invention.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a tubular-magazine firearm, the combination with a gun-frame having a loading-opening formed in its bottom, of a tubular magazine, and a pivotal cartridge-carrier having its forward end formed with a long finger-opening.

2. In a tubular-magazine firearm, the combination with the gun-frame having the inner faces of its right and left hand side walls formed with trunnion-holes and having its bottom formed with a loading-opening, a pivotal cartridge-carrier having two longitudinal members each provided at its rear end with an integral trunnion, and means for firmly securing the said members together.

3. A pivotal cartridge-carrier for tubular-magazine guns, the said carrier being composed of two independently-formed longitudinal members, and means for coupling them rigidly together after their introduction into the gun-frame.

4. A pivotal cartridge-carrier for firearms,

the said carrier being composed of two independently-formed longitudinal members adapted to be interlocked one with the other, and a screw for holding them rigidly together in their interlocked relations after their introduction into the gun-frame.

5. A pivotal cartridge-carrier for tubular-magazine guns, formed upon the lower face of its forward end with a cartridge-loading shoulder.

6. A pivotal cartridge-carrier for tubular-magazine guns, formed upon its upper face with a cartridge-stop shoulder and upon its lower face at a point in front of the said stop-shoulder with a cartridge-loading shoulder.

7. A pivotal cartridge-carrier for tubular-magazine guns, composed of two independently-formed longitudinal members adapted to be rigidly secured together, and the said carrier being provided upon its upper face with a cartridge-stop shoulder and upon its lower face with a cartridge-loading shoulder and having its forward end formed with a long finger-opening.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

WILLIAM MASON.
FRANK F. BURTON.

Witnesses:

FREDERIC C. EARLE,
CLARA L. WEED.