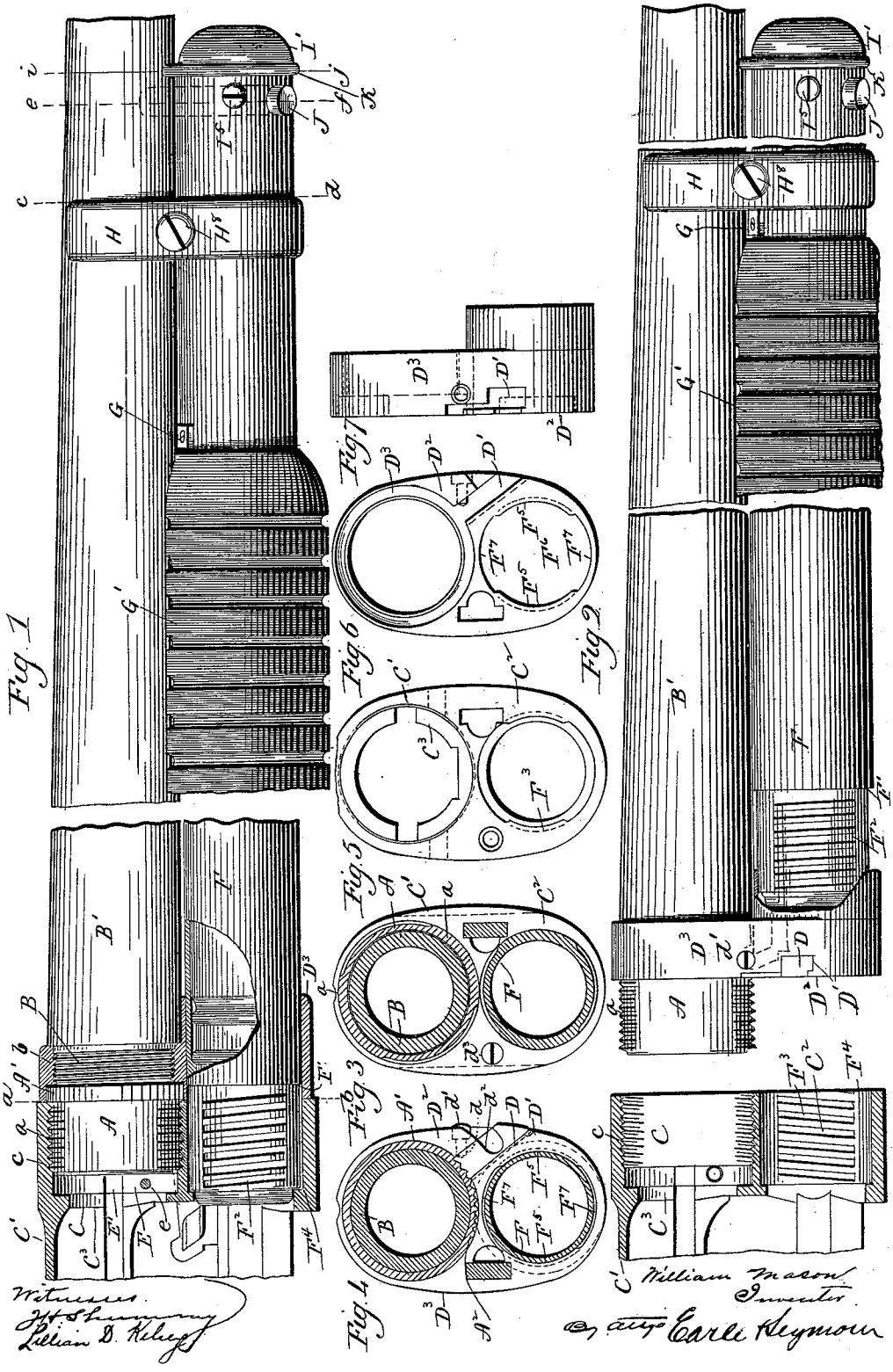
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# W. MASON.

## TAKE-DOWN GUN.

No. 605,734. Patented June 14, 1898.



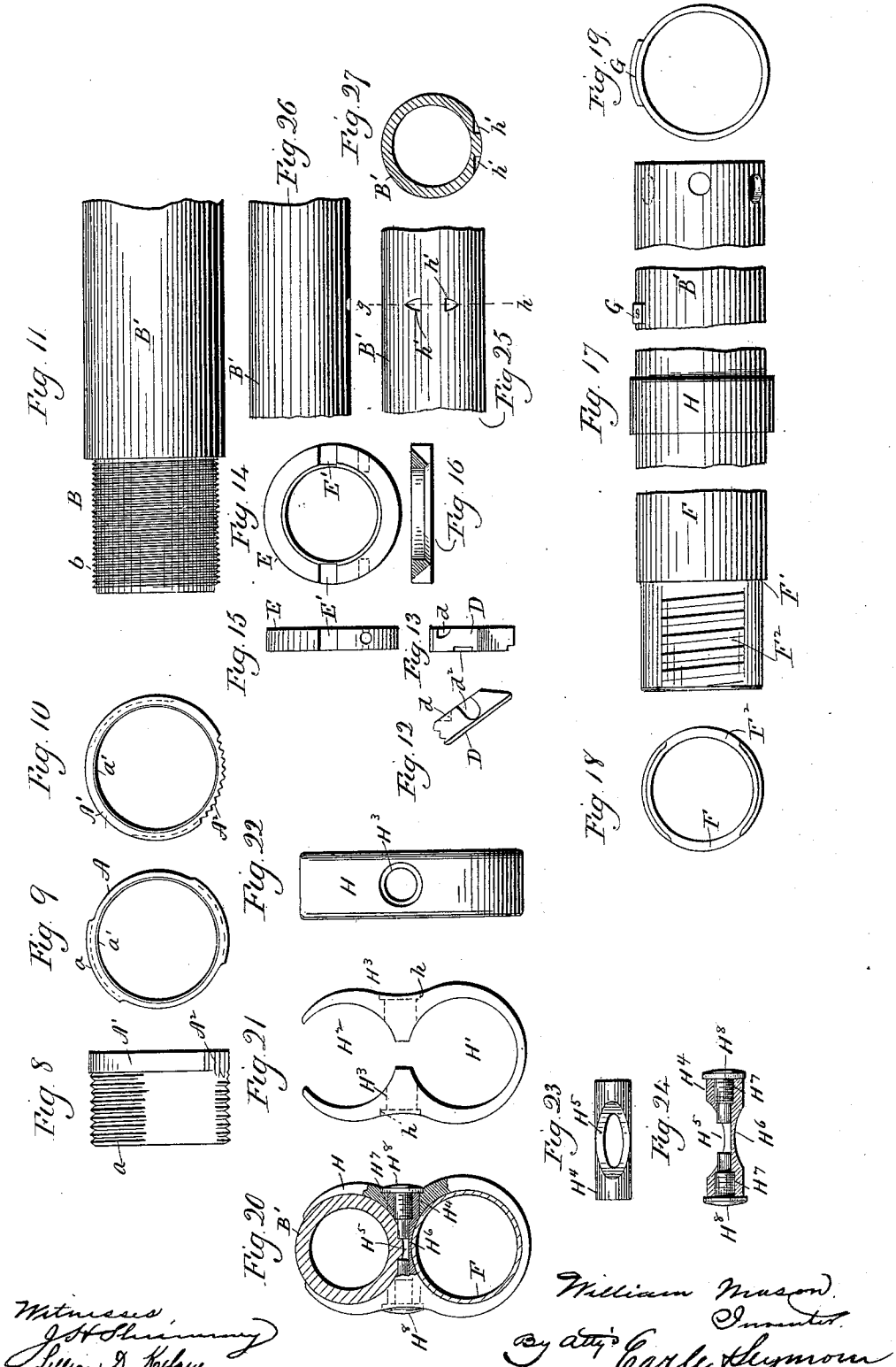

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# W. MASON.

## TAKE-DOWN GUN.

No. 605,734. Patented June 14, 1898.




Witnesses,
J. H. Shumway
Lillian D. Kelsey.

William Mason.
Inventor.
By Atty's Earle & Seymour

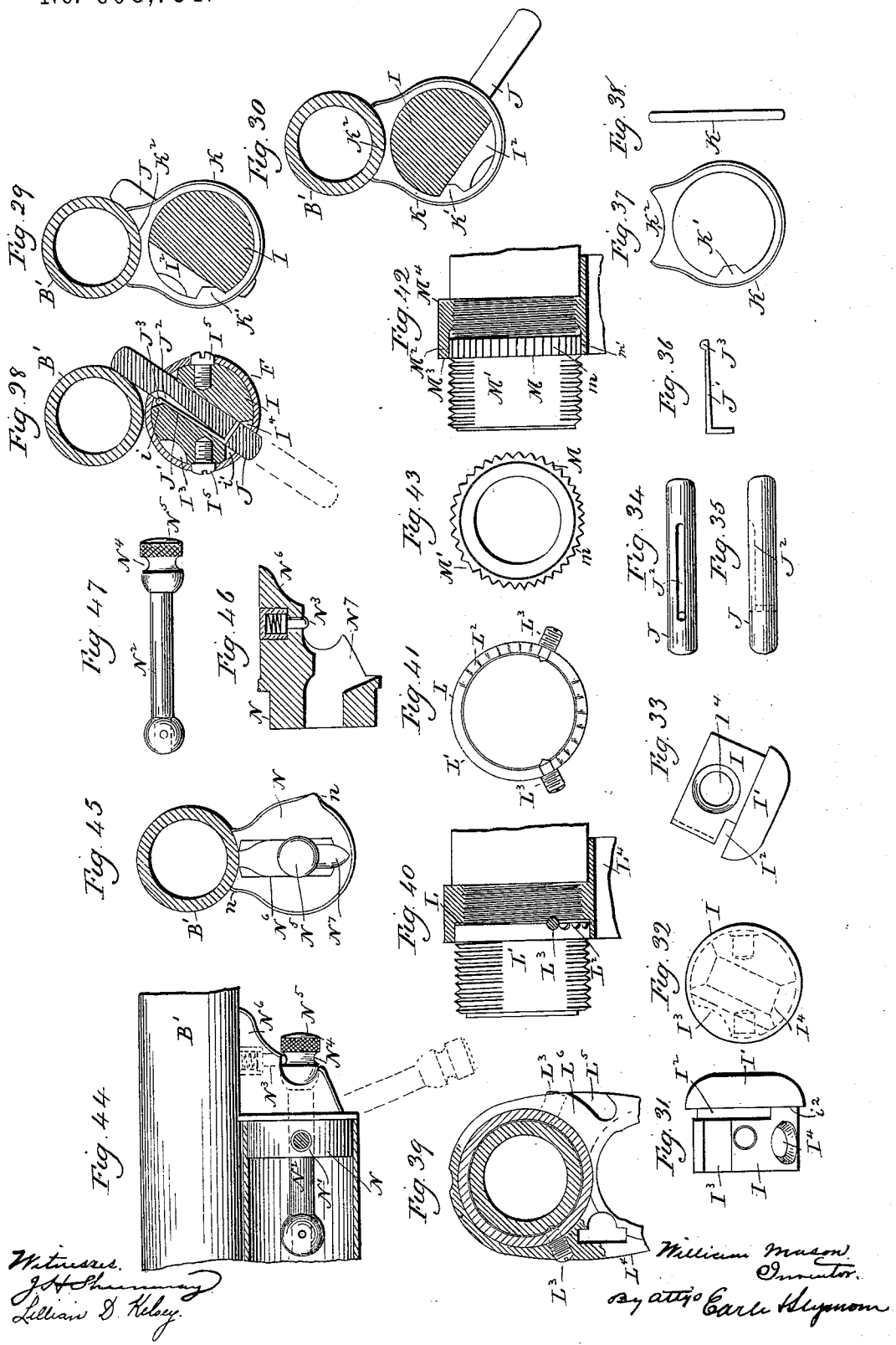
THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 3 Sheets—Sheet 3.

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## TAKE-DOWN GUN.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

WILLIAM MASON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE WINCHESTER REPEATING ARMS COMPANY, OF SAME PLACE.

## TAKE-DOWN GUN.

SPECIFICATION forming part of Letters Patent No. 605,734, dated June 14, 1898.

Application filed November 22, 1897. Serial No. 659,359. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM MASON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Take-Down Guns; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters 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, partly in side elevation and partly in central longitudinal section, of a take-down gun constructed in accordance with my invention and shown as assembled; Fig. 2, a corresponding view showing the gun as taken down; Fig. 3, a view in vertical transverse section on the line *a b* of Fig. 1, looking rearward and therefore showing the forward or recoil face of the gun-frame; Fig. 4, a corresponding view looking forward and therefore showing the rear or recoil face of the yoke uniting the gun-barrel and tubular magazine; Fig. 5, a detached view of the forward end of the gun-frame shown as stripped of all appurtenances; Fig. 6, a detached view of the yoke, which is shown in rear elevation; Fig. 7, a similar view of the yoke in side elevation; Fig. 8, a detached view, in side elevation, of the take-up sleeve; Fig. 9, a similar view thereof in rear elevation; Fig. 10, a similar view thereof in front elevation; Fig. 11, a detached broken view, in side elevation, of the butt-end of the gun-barrel; Fig. 12, a detached face view of the dog employed for locking the take-up sleeve against rotation; Fig. 13, an edge view of the said dog; Fig. 14, a detached view, in rear elevation, of the non-rotatable extractor-receiving ring; Fig. 15 an edge view thereof; Fig. 16, a view thereof in section through the extractor-slots; Fig. 17, a broken view, in side elevation, of the magazine, the central portions of which are broken away; Fig. 18, a view of the magazine in rear elevation, showing its interrupted screw-threads; Fig. 19, a view of the magazine in front elevation, showing the stop with which it is provided for limiting its longitudinal movement forward; Fig. 20, a view in vertical transverse section on the line *c d* of Fig. 1, looking rearward toward the forward edge of the band, a portion of which is broken away; Fig. 21, a detached view of the band stripped of all appurtenances; Fig. 22, a similar side view thereof; Fig. 23, a detached plan view of the tie employed in the band; Fig. 24, a sectional view thereof; Fig. 25, a reverse plan view of a portion of the barrel, showing the notches formed in it for the reception of the ends of the band-tie screws; Fig. 26, a view of the same portion of the barrel in side elevation; Fig. 27, a sectional view of the barrel on the line *g h* of Fig. 25; Fig. 28, a view in vertical transverse section on the line *e f* of Fig. 1, showing the magazine pin-lever in elevation; Fig. 29, a similar view on the line *i j* of the same figure; Fig. 30, a similar view, but with the pin-lever in its operating position; Fig. 31, a detached view, in side elevation, of the magazine-plug; Fig. 32, a view thereof in rear elevation, its pin-lever hole being shown by broken lines; Fig. 33, another view, in side elevation, of the plug; Fig. 34, a detached plan view of the pin-lever; Fig. 35, a similar view of the pin-lever, in side elevation, with its spring-recess indicated by broken lines; Fig. 36, a detached view, in side elevation, of the spring; Fig. 37, a detached view in elevation of the magazine stop-ring; Fig. 38, an edge view thereof; Fig. 39, a broken view in elevation of a modification showing another way of securing the take-up ring against rotation; Fig. 40, a view in central longitudinal section of the same construction; Fig. 41, a detached view, in front elevation, of the modified take-up ring, together with the screws which hold it against rotation; Fig. 42, a view in vertical longitudinal section of another mode of adjusting and locking the take-up ring; Fig. 43, a detached view, in front elevation, of the ring itself; Fig. 44, a broken view, in side elevation, showing one of the modified forms which the pin-lever for turning the magazine may assume; Fig. 45, a view of the same parts in front elevation; Fig. 46, a detached view, in vertical longitudinal section, of the magazine-plug of this construction; Fig. 47, a detached view of the pin-lever.

My invention relates to an improvement in that class of guns which are known as "take-down" guns, from the fact that they are con-

structed for the detachment of the barrel and magazine from the gun-frame to enable them to be more compactly packed for transportation, the object being to produce a simple and convenient gun of the type described, with particular reference to taking up the wear incident to its repeated dismemberment and reassemblance.

With these ends in view my 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 my invention I employ, as herein shown, an internally and externally threaded take-up sleeve A, the continuous internal thread $a'$ of which is finer in pitch than its interrupted external thread $a$, for which reason it becomes, so to speak, a "differentially-threaded" sleeve. The relative pitch of the threads may be varied as desired; but I may mention that I have found by threading the sleeve so as to have twenty threads to the inch for the external thread and thirty threads to the inch for the internal threads good results are attained. When the threads are thus differentiated in pitch, they may run in the same direction. Thus both the external and internal threads of the sleeve shown are right-hand threads. However, if preferred, they might both be left-hand threads or one might be a right-hand thread and the other a left-hand thread, in which case it will not be necessary to have the internal and external threads differentiated; but as the operation of the sleeve would then be the same in effect as a sleeve having its threads differentiated in pitch it would still remain to all intents and purposes a differentiated sleeve, and, therefore, in employing the word "differentially" to the take-up sleeve I wish to be understood as including all sleeves which act in the same way as a sleeve the threads of which are actually differentiated in pitch; nor do I limit myself, as I may here add, to making the external threads interrupted or the internal threads $a'$ continuous, or vice versa. The said take-up sleeve is mounted upon the butt-end B of the gun-barrel B', which is formed with a continuous external thread $b$, corresponding in pitch and direction to the continuous internal thread $a'$ of the sleeve. On the other hand the external interrupted thread $a$ of the said sleeve corresponds in pitch to the internal interrupted thread $c$, formed within the barrel-opening C, located in the upper portion of the forward portion of the forward end of the frame C' of the gun. At its forward end the sleeve is provided with an annular locking-shoulder A', by means of which it is normally locked against rotation upon the butt-end of the gun-barrel. A portion of the lower half of the periphery of this shoulder is toothed or serrated, as at $A^2$, for engagement by a locking-dog D, having its inner end toothed and located in an inclined undercut slot D', formed in the rear or recoil face $D^2$ of a heavy yoke $D^3$, rigidly secured to the butt-end of the gun-barrel. The said face $D^2$ of the yoke coacts with the corresponding recoil-face $C^2$, formed at the forward end of the gun-frame in taking the brunt of the recoil following the firing of the gun from the threads, by means of which the gun-barrel and magazine are coupled with the gun-frame. These threads must be such as will permit the gun-barrel and magazine to be removed and replaced by hand, and must be protected against wear to the fullest extent possible. The said recoil-faces provide such protection. The dog D is formed with a shallow notch $d$, which receives a small screw $d'$, mounted in the said yoke $D^3$, as shown in Fig. 4, and provided for holding the dog in place. The said dog is also formed with a stop-recess $d^2$, which receives a stop-screw $d^3$, mounted in and projecting forward from the recoil-face $C^2$ of the gun-frame C'. It will be understood that when the butt-end B of the gun-barrel is turned with the said take-up sleeve A in the gun-frame C' the yoke $D^3$ will sweep around until the head of the stop-screw $d^3$ stops it by entering the said stop-recess and impinging against its end wall.

The take-up sleeve A is initially adjusted upon the butt-end of the gun-barrel in such position that when its external interrupted threads $a$ coact with the internal interrupted threads $c$ of the barrel-opening C of the gun-frame C' the recoil-face $D^2$ of the yoke $D^3$ will be drawn into close contact with the recoil-face $C^2$ of the said gun-frame C'. When the take-up sleeve has been so adjusted, it is locked in such position by means of the locking-dog D. Now in case the threads become so worn that the two recoil-faces are not drawn into hard close contact when the gun is assembled the locking-dog will be disengaged from the serrated shoulder of the take-up sleeve and the same readjusted, so that when the gun is reassembled the two recoil-faces will be again drawn into close contact. It will also be understood that the wear of taking down and assembling the gun so far as the barrel is concerned falls upon the external threads of this sleeve and that almost no wear falls upon the threads between the sleeve and the barrel, as the sleeve is normally locked in a fixed position. By means of this simple device, which is very readily readjusted, I am enabled to keep all wear constantly taken up. I wish particularly to point out also that the take-up sleeve described performs a two-fold take-up function, inasmuch as it not only takes up the described wear of the threads, but also may be utilized to take up any wear of the recoil-faces $D^2$ and $C^2$.

In order to permit the gun-barrel to be turned in taking down and reassembling the gun without disturbing the extractors mounted in the breech-block, I employ what I shall term a "non-rotatable extractor-ring" E, which is interposed between the extreme rear end of the gun-barrel and the forward portion of the receiver-chamber $C^3$ of the gun-frame. This

ring is formed in its rear face with two extractor-slots E′ E′, located at points diametrically opposite each other and designed to receive the forward ends of the extractors mounted in the breech-block. Neither the extractors nor breech-block are shown, but both are to be of any approved construction. This ring is held against rotation by means of two screws *e*, located opposite each other, and mounted in the gun-frame C′. The central opening of the ring is shaped for the reception of the rim and adjoining part of the head of a cartridge, as clearly shown in Fig. 14, so that the ring in one view of it may be considered as an extension of the cartridge-chamber of the gun-barrel, inasmuch as it receives a portion of the cartridge when the same is in position for firing. It will be apparent that by using this ring the barrel and the parts connected with it may be turned without disturbing the ring and therefore without disturbing the extractors, inasmuch as the butt-end of the barrel is free to turn upon the forward face of the non-rotatable ring. This ring might be formed integral with the gun-frame, but that would make the gun more expensive and more difficult to make.

For the purpose of positively drawing the lower portion of the recoil-face $D^2$ of the yoke $D^3$ solidly against the lower portion of the recoil-face $C^2$ of the gun-frame C′, I form the rear end of the magazine-tube F with an annular drawing-shoulder F′, located in a plane intersecting the longitudinal axis of the magazine at a right angle and situated forward of the coarse interrupted threads $F^2$, formed upon the end of the magazine for coaction with the corresponding interrupted threads $F^3$, formed within the magazine-opening $F^4$, located in the lower portion of the forward end of the gun-frame C′. The said annular shoulder F′ engages just before the magazine turns into its final position with two vertically-arranged segmental drawing-shoulders $F^5$ $F^5$, located in the circular magazine-passage $F^6$, formed in the lower end of the yoke $D^3$. Between the upper and lower ends of the segmental shoulders $F^5$ $F^5$ are two shallow horizontally-arranged clearance-notches $F^7$ $F^7$, provided for the clearance of the interrupted screw-threads $F^2$ of the magazine when the same is being passed through the yoke for its entrance into the magazine-opening $F^4$ of the gun-frame. It will be understood that the drawing action produced by the coaction of the interrupted threads $F^2$ and $F^3$ causes the shoulder F′ to pull against the shoulders $F^5$ $F^5$, so as to force the lower portions of the two recoil-faces $C^2$ and $D^2$ very solidly together.

In order to prevent the tubular magazine from being entirely disengaged from the yoke $D^3$ when the gun is taken down, I provide the magazine with a stop G, which is secured to it at a point in front of the forward end of the sliding operating-handle G′ and located in position to engage when the magazine is slid forward with the rear edge of the fastening device H, employed for connecting the forward end of the magazine with the gun-barrel. It will of course be understood that the stop G is located upon the magazine in position to stop the forward movement of the magazine before the rear end thereof is disengaged from the yoke $D^3$ by clearing the forward end of the magazine-passage $F^6$.

The fastening device H, I shall hereinafter call a "band," as that term is commonly employed to designate the part in question. The said band is formed with an opening H′, through which the magazine passes and rides, and with an opening $H^2$, located above the opening H′ and receiving the gun-barrel, upon which the band is firmly clasped. At opposite points the band is formed with sockets $H^3$ $H^3$, which receive a cylindrical tie $H^4$, the upper face of which is recessed, as at $H^5$, for the clearance of the barrel, and the lower face of which is recessed, as at $H^6$, for the clearance of the magazine. The ends of this tie are formed with threaded openings $H^7$ $H^7$ for the reception of combined binding and locking screws $H^8$ $H^8$, the heads of which engage with shoulders *h h*, located near the outer ends of the said sockets $H^3$ $H^3$, whereby the respective arms of the band are drawn together and clasped firmly upon the gun-barrel. The inner ends of the said screws $H^8$ $H^8$ emerge into the said recess $H^5$, whereby they are permitted to enter locking-notches *h′ h′*, formed in the lower face of the barrel, as shown in Figs. 25, 26, and 27, whereby the band is prevented from turning upon the barrel, and also prevented from moving endwise in either direction thereupon.

In the forward end of the magazine I locate a solid plug I, having a rounded head I′, and formed with a transversely-arranged stop-slot $I^2$, with a longitudinally-arranged assembling-groove $I^3$ and with a diametric hole $I^4$. This plug is firmly secured within the forward end of the magazine by means of two screws $I^5$ $I^5$, mounted therein. The primary purpose of the plug is to receive the pin-lever J, by means of which the magazine is turned in taking down and reassembling the gun and which is located in the said hole $I^4$. Normally—that is to say, when the gun is assembled—the said pin-lever is supported in an elevated position with its projecting end lying, so to speak, under the left-hand side of the barrel, as shown in Figs. 28 and 29, by means of a spring J′, which is set into a recess $J^2$, formed to receive it in the pin, as shown in Figs. 34 and 35. At its upper end this spring is furnished with a small retaining-knob $J^3$, which engages with the inclined face of a counterbore *i*, formed at the upper end of the diametric pin-lever hole $I^4$. However, the recess $J^2$ in which the spring J′ is located is so deep that when a sufficient downward thrust is applied to the upper end of the pin the knob $J^3$ of the spring will be forced

inward by the incline of the counterbore $i$, permitting the pin to be thrust downward into its operating position, in which its lower end projects below the magazine, as shown by broken lines in Fig. 28. When the pin reaches this position, the spring, which has meanwhile been under tension, springs outward so as to enter its knob $J^3$ into the clearance-space formed by the counterbore $i'$ at the lower end of the diametric pin-lever hole $I^4$ in the plug.

For the purpose of limiting the rotation of the magazine in both directions I employ a stop-ring K, which is formed with an inwardly-projecting stop-lug K′, having oppositely-beveled faces, and with an upwardly-projecting concave seat $K^2$, which receives the gun-barrel, whereby the stop-ring is held against rotation on its own axis. This ring is slipped over the plug I from the rear end thereof, and so as to bear against the shoulder $i^2$, formed by the rounded head I′ of the plug, which is provided with the longitudinal clearance-slot $I^3$ before mentioned, so as to clear the stop-lug K′ of the ring when the same is slipped over the plug. When the ring and plug are thus assembled, the transversely-arranged stop-slot $I^2$ of the plug is located in the same plane as the stop-lug K′ of the ring, the ends of the said stop-slot $I^2$ engaging with the beveled opposite faces of the stop-lug K′ for limiting the rotation of the plug, and hence of the magazine. Thus Fig. 29 shows the coaction of the stop slot and lug when the magazine is screwed home, and Fig. 30 the coaction of the opposite end of the slot with the opposite face of the stop-lug when the magazine is unscrewed.

It is apparent that in practicing my invention some changes from the construction herein shown and described may be made. Thus instead of employing the dog D for locking the take-up sleeve against rotation I may, if preferred, provide for locking the ring against rotation, as shown in Figs. 39 to 41, inclusive. In this arrangement I form the forward face of the annular shoulder L of the take-up sleeve L′ with a short series of cup-like notches $L^2$, receiving locking-screws $L^3L^3$, mounted in the yoke $L^4$. In this construction I might form a stop-recess $L^5$ in the recoil-face $L^6$ of the yoke $L^4$ for coaction with such a stop-screw as represented by $d^3$ in Fig. 3. Still another way of locking the take-up sleeve is shown in Figs. 42 and 43, in which the periphery of the shoulder M of the sleeve M′ is formed with a circular series of teeth $m$, which engage with a corresponding series of inwardly-projecting teeth $m'$, formed within a circular recess $M^2$, located in the recoil-face $M^3$ of the yoke $M^4$. For the purpose of shifting this take-up sleeve the gun-barrel must be unscrewed from the yoke $M^4$, so as to be entirely disengaged from the sleeve, which may then be pulled longitudinally away from the yoke and rotated one way or the other and then reseated in any desired position within the said circular recess, after which the gun-barrel is screwed back into its home position in the yoke and sleeve.

Figs. 44 to 47, inclusive, show another mode of constructing and arranging a pin-lever for turning the magazine. In this construction the forward end of the magazine is closed by means of a plug N, held in place by screws N′, only one of which is shown. The pin-lever $N^2$ is mounted in the plug so as to be in its normal position in line with the longitudinal axis of the magazine. Normally the pin is forced inward into the forward end of the magazine and retained in place by means of a spring-plunger $N^3$, which enters an annular groove $N^4$, formed in the head $N^5$ of the pin, the spring-plunger being mounted in a bracket $N^6$, formed integral with the magazine-plug. When it is desired to turn the magazine, the pin is grasped by its head and pulled outward, so as to cause the spring-plunger $N^3$ to ride out of the groove $N^4$, permitting the pin-lever to be drawn outward, after which it is turned downward into the position shown in broken lines by Fig. 44. The upper end of the pin is then located in a narrow slot $N^7$, formed in the bracket, which forms a purchase for the turning of the magazine. In this case the stopping of the rotation of the magazine in one direction or the other is effected by lugs $n$, formed upon the plug N and shown in Fig. 45.

It will be obvious that in view of the modifications above suggested and of others that might be made that I do not limit my invention to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a take-down gun, the combination with a gun-frame having an internally-threaded barrel-receiving opening, of a gun-barrel having its butt-end threaded, and an internally and externally threaded normally-fixed take-up sleeve mounted upon the threaded butt-end of the gun-barrel, taking into the threads of the said barrel-receiving opening and normally fixed upon the barrel but adjustable thereupon for taking up wear.

2. In a take-down gun, the combination with a gun-frame having an internally-threaded barrel-receiving opening, of a gun-barrel having its butt-end threaded, and an internally and externally threaded normally-fixed take-up sleeve mounted upon the threaded butt-end of the gun-barrel, taking into the threads of the said barrel-receiving opening, and means for normally holding the said sleeve against rotation upon the said barrel upon which it is turned only for taking up wear.

3. In a take-down gun, the combination with a gun-frame, having an internally-threaded barrel-receiving opening, of a gun-barrel hav-

ing its butt-end threaded, and a normally-fixed take-up sleeve internally threaded for mounting upon the gun-barrel, and externally threaded for taking into the threads of the said opening, the external threads of the sleeve being coarser in pitch than the internal threads thereof.

4. In a take-down gun, the combination with a gun-frame having an internally-threaded barrel-receiving opening, of a gun-barrel having its butt-end threaded, and a normally-fixed take-up sleeve internally threaded for mounting upon the gun-barrel, externally threaded for taking into the threads of the said opening, and having an annular locking-shoulder formed at its forward end and engaged for normally locking the sleeve against rotation.

5. In a take-down gun, the combination with a gun-frame having an internally-threaded barrel-receiving opening, of a gun-barrel having its butt-end threaded, a normally-fixed take-up sleeve internally threaded for mounting upon the butt-end of the barrel and externally threaded for taking into the threads of the said opening, and formed at its forward end with an annular shoulder, and a dog engaging with the said shoulder for locking the sleeve against rotation and in any desired position of adjustment.

6. In a take-down gun, the combination with a gun-frame having an internally-threaded barrel-receiving opening, of a gun-barrel having its butt-end threaded, a tubular magazine, a yoke uniting the butt-end of the barrel and the rear end of the magazine, a take-up sleeve internally threaded for being mounted upon the butt-end of the barrel, and externally threaded for taking into the threads of the said opening, and a dog adapted to engage with the sleeve for locking the same in any desired position of adjustment, and located in a slot formed in the rear face of the said yoke.

7. In a take-down gun, the combination with a gun-frame having an internally-threaded barrel-receiving opening, and shaped at its forward end to form a recoil-face, of a gun-barrel and a tubular magazine, a yoke for uniting the butt-end of the barrel and the rear end of the magazine, and having a recoil-face conforming to that of the gun-frame, a normally-fixed take-up sleeve internally threaded for being mounted upon the butt-end of the barrel and externally threaded for taking into the threads of the said opening and a stop projecting forward from the recoil-face of the gun-frame for limiting the rotation of the gun-barrel with respect to the gun-frame in assembling the gun.

8. In a take-down gun, the combination with a gun-frame having an internally-threaded barrel-receiving opening, of a gun-barrel having an externally-threaded butt-end, a tubular magazine, a yoke uniting the butt-end of the barrel with the rear end of the magazine, and having its rear face conformed to the front face of the frame, a normally-fixed take-up sleeve internally threaded for mounting upon the gun-barrel and externally threaded for taking into the threads of the said barrel-receiving opening, a dog mounted in a slot formed in the rear face of the yoke, engaging with the sleeve for locking it against rotation, and formed with a stop-recess, and a stop projecting from the forward face of the gun-frame and entering the said stop-recess to limit the movement of the yoke, barrel and magazine in assembling the gun.

9. A gun provided with a cartridge-chamber the rear portion of which is located in the frame of the gun and formed with one or more extractor-receiving slots, the remaining or forward portion of the cartridge-chamber being located in the butt-end of the gun-barrel which may be removed from the gun-frame without disturbing the said rear portion of the said cartridge-chamber.

10. In a gun, the combination with the frame thereof, of a ring located within the said frame, forming the rear portion of the cartridge-chamber and furnished with one or more extractor-receiving slots, and a removable gun-barrel containing the remaining portion of the cartridge-chamber, and abutting against the forward face of the said ring when in its home position.

11. In a take-down gun, the combination with a gun-frame having a threaded barrel-receiving opening and a threaded tubular magazine-opening, of a gun-barrel adapted to be entered into and secured within the said barrel-opening, a magazine threaded for entrance into the said magazine-opening and formed with an annular drawing-shoulder located at a right angle to the longitudinal axis of the magazine, a yoke rigidly secured to the barrel and having a magazine-passage for the passage through it of the magazine, and engaged by the said drawing-shoulder of the magazine for being drawn solidly against the gun-frame when the magazine is turned into its home position.

12. In a take-down gun, the combination with a gun-frame having a threaded barrel-receiving opening, and a tubular-magazine opening formed with interrupted threads, of a gun-barrel adapted to be inserted into and secured within the said barrel-opening and a normally-fixed take-up sleeve internally threaded for being mounted upon the butt-end of the barrel and externally threaded for taking into the threads of the barrel-receiving opening, a tubular magazine having its rear end formed with interrupted threads for coaction with the interrupted threads of the said magazine-opening, and a yoke uniting the butt-end of the barrel with the rear end of the magazine.

13. In a take-down gun, the combination with a gun-frame having a threaded barrel-receiving opening, and a tubular-magazine

opening formed with interrupted threads, of a gun-barrel adapted to be inserted into and secured within the said barrel-opening, and a tubular magazine having its rear end formed with interrupted threads, and also with an annular drawing-shoulder located in a plane intersecting the longitudinal axis of the magazine at a right angle, a yoke firmly connected with the barrel and having a magazine-passage through which the magazine passes and which is formed with segmental drawing-shoulders separated by clearance-spaces, the said annular shoulder of the magazine and the said segmental shoulders of the yoke coacting to draw the lower end of the yoke solidly against the lower portion of the gun-frame when the magazine is turned into its home position.

14. In a tubular-magazine gun, the combination with the barrel and tubular magazine thereof, of a band embracing the said magazine and barrel, a tie interposed between the barrel and magazine between the arms of the band, and having its upper face recessed for the clearance of the barrel and its lower face recessed for the clearance of the magazine, two screws respectively entering the opposite ends of the said tie and engaging with the arms of the band for drawing the same together, and at their inner ends emerging into the said upper recess and entering notches formed in the barrel for preventing the band from moving.

15. In a tubular-magazine gun, the combination with the barrel thereof, of a tubular magazine, a magazine-plug located in the forward end of the magazine, and a pin-lever mounted in the plug in which it is longitudinally movable and provided for turning the magazine into its home and take-down positions.

16. In a tubular-magazine gun, the combination with the barrel thereof, of a tubular magazine, a magazine-plug located in the forward end of the magazine, a pin passing diametrically through the plug in which it is longitudinally movable and provided for turning the magazine into its home and take-down positions and a spring for controlling the position of the said pin-lever.

17. In a tubular-magazine gun, the combination with the barrel thereof, of a tubular magazine, a magazine-plug located in the forward end of the magazine, and formed with a diametric pin-lever hole, the ends of which are counterbored, a longitudinally-movable pin-lever located in the said hole in which it is movable, and a spring mounted in the said lever, and adapted at one end to spring into the counterbored ends of the hole for holding it in its operating and retired positions.

18. In a tubular-magazine gun, the combination with the barrel thereof, of a tubular magazine, a magazine-plug located in the forward end of the magazine, a lever mounted in the said plug for rotating the magazine, and a stop-ring mounted upon the plug and engaging with the barrel which prevents it from rotating upon its own axis and coacting with the plug to limit the rotation of the magazine in one direction or the other.

19. In a take-down gun, the combination with a gun-frame having an internally-threaded barrel-receiving opening, and shaped at its forward end to form a recoil-face, of a gun-barrel and a magazine, a yoke for uniting the butt-end of the barrel and the rear end of the magazine, and having a recoil-face conforming to that of the gun-frame, and an internally and externally threaded normally-fixed take-up sleeve mounted upon the threaded butt-end of the gun-barrel, and taking into the threads of the said barrel-receiving opening, and made adjustable for performing the twofold function of compensating for wear falling upon the internal threads of the opening, and upon the external threads of the sleeve, and upon the two recoil-faces.

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

WILLIAM MASON.

Witnesses:
DANIEL H. VEADER,
THOMAS C. JOHNSON.