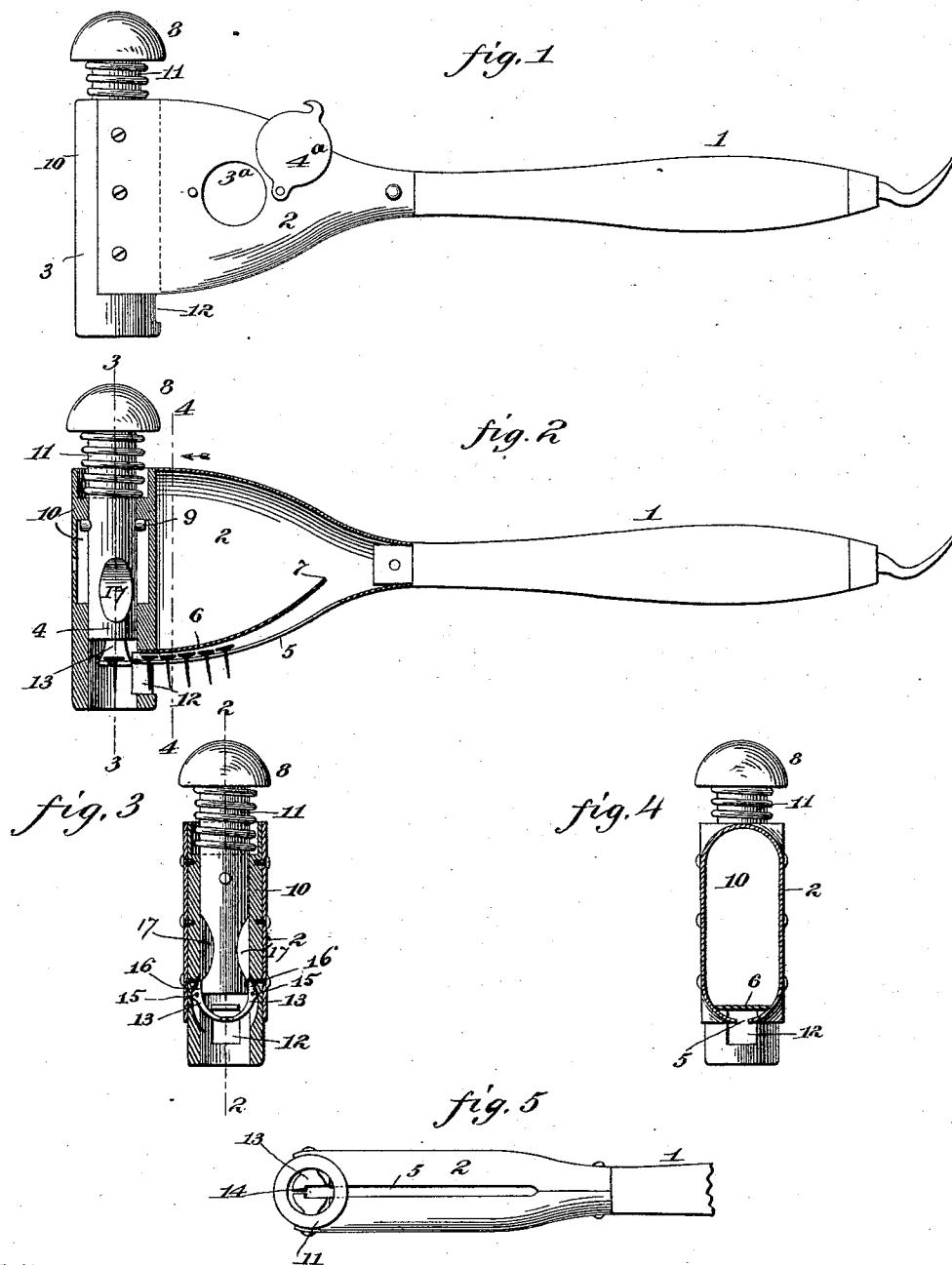


(No Model.)

F. R. BISCHOFF.
MAGAZINE TACK HAMMER.

No. 529,237.

Patented Nov. 13, 1894.



Witnesses

J. F. Palmer
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Inventor
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UNITED STATES PATENT OFFICE.

FRANK R. BISCHOFF, OF MORRIS, INDIANA, ASSIGNOR TO SCOTT C. BONE
AND JOHN D. O'CONNOR, OF SAME PLACE.

MAGAZINE TACK-HAMMER.

SPECIFICATION forming part of Letters Patent No. 529,237, dated November 13, 1894.

Application filed February 15, 1894. Serial No. 500,258. (No model.)

To all whom it may concern:

Be it known that I, FRANK R. BISCHOFF, a citizen of the United States, residing at Morris, in the county of Ripley and State of Indiana, have invented certain new and useful Improvements in Magazine Tack-Hammers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same:

My invention relates to magazine tack-hammers.

The object of the invention is to provide a simple, strong and efficient hammer of this class which will be cheap and durable, and not liable to get out of order.

For a detailed description, reference is made to the following specification and to the accompanying drawings, in which—

Figure 1 is a side-view of the hammer. Fig. 2 is a sectional view on the line 2—2 of Fig. 3. Fig. 3 is a sectional view on the line 3—3 of Fig. 2. Fig. 4 is a sectional view on the line 4—4 of Fig. 2, and Fig. 5 is a bottom plan view of a portion of the hammer.

Referring to the drawings, 1 indicates the handle, which is of ordinary construction.

2 indicates a tack magazine to which the handle is attached, and 3 indicates a head upon the outer end of the handle or magazine which is hollow and preferably cylindrical and in which the hammer proper, or driving plunger, 4, works.

The tacks are introduced into the magazine 2 through an opening 3^a, which is usually closed by a suitable cover 4^a. In the lower side of the magazine is a longitudinal slot 5, which is wide enough to permit the stems of the tacks to pass through, but not sufficiently wide to allow the head to pass. Above the channel or slot 5 is a guard or false bottom 6 which extends from the head 3 for a considerable distance inward over the slot 5, thus preventing the main body of tacks in the magazine from interfering with the movement of the tacks in the guide slot.

During the operation of hammering, the jarring of the hammer will shake the tacks and cause them to gradually pass over the inner end 7 of the guard, after which the con-

tinued jarring of the hammer will cause them to adjust themselves properly in the guide slot.

The driving plunger 4, as shown, is cylindrical and provided with a head 8. The motion of the plunger in the hollow head 3 is limited by a pin 9, the ends of which fit in grooves 10 within the head, thus preventing the plunger from turning, and also limiting its longitudinal movement. The plunger is normally held at its highest position by means of a suitable spring 11 which may be coiled around the plunger and interposed between the head 8 and the cylindrical head 3. The tack channel extends through an opening 12 in the lower part of the head 3 so as to carry the tacks to the interior of said head. Within the head a pair of movable pawls 13 are pivoted, as shown best in Fig. 3. The lower edges of the pawls are separated normally at the side adjacent to the tack channel and they are in line with and form a continuation of said channel 5. These pawls are provided with shoulders 14 near the middle which are normally in contact and limit the movements of the tacks so that but one tack may enter the head at a time. The pawls 13 are pivoted to the cylindrical head by pivots 15, and they are provided with upper arms 16 which normally rest between the lower end of the plunger and the wall of the cylindrical head, thus holding the pawls in position to receive and retain the tacks. When, however, the plunger is lowered, its lower end strikes the pawls 13 and forces them apart, the upper arms 16 being simultaneously moved toward each other and into openings 17 in the plunger.

The operation of my improved hammer is as follows: A number of tacks,—the contents of a small paper, for instance,—may be placed in the magazine at a time. Upon shaking the hammer, or striking the head upon the floor a few times, the tacks will arrange themselves in the guide channel 5 and gradually move down said channel until the foremost tack reaches the pawls 13, as shown in Fig. 2. When the hammer is again struck against the floor or other object into which it is desired to drive the tack, the inertia of the driving plunger 4 will carry its lower end down to the bottom of the hollow head and in its

progress it will separate the pawls, release the tack, and drive it. Immediately after the tack is driven, the plunger 4 will rise and the operation of swinging the hammer will throw a new tack in between the pawls ready to be driven.

In the foregoing specification I have described the preferred form of my invention. It will be evident that minor changes in construction may be made without departing from the spirit thereof.

Therefore, without limiting myself to the precise form and arrangement of parts shown and described, I claim—

1. In a magazine tack hammer the combination with the hollow head, the handle and the tack magazine connected together, of a driving plunger adapted to reciprocate relatively to the head and operating by its inertia to drive the tacks, and a guide-way for conducting tacks from the magazine to the lower end of the plunger, substantially as described.

2. In a magazine tack hammer the combination with the hollow head and a handle, of a driving plunger adapted to reciprocate in the head and operating by its inertia, a tack magazine connected to said head and having a tack channel or guide slot leading to the lower part thereof, and pawls for receiving and holding the tacks beneath the plunger, substantially as described.

3. In a magazine tack hammer the combination with the handle and the tack maga-

zine having a guide or slot therein, of a hollow head to which the magazine is attached, a driving plunger adapted to reciprocate in said head and operating by its inertia, said plunger being provided with recesses near its lower end and a retracting spring, a pair of pawls pivoted in the sides of the head, the lower edges of said pawls being opposite to and forming a continuation of the tack channel of the magazine, and the upper ends of said pawls being normally separated by the lower end of the plunger and adapted to pass into the recesses of the plunger when the latter is lowered, substantially as described.

4. In a magazine tack hammer the combination with the hollow head, the driving plunger and the tack magazine having a guide slot in its lower side leading to the said head, of a pair of pawls pivoted in the inside of the head beneath the driving plunger, said pawls having offset edges normally separated at one end and in line with the guide slot, the offsets or shoulders being normally in contact and forming a stop for the tacks whereby the tacks may be guided to and centered under the plunger, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK R. BISCHOFF.

Witnesses:

JNO. D. O'CONNOR,
SCOTT C. BONE.

It is hereby certified that the residence of the assignees in Letters Patent No. 529,237, granted November 13, 1894, upon the application of Frank R. Bischoff, of Morris, Indiana, for an improvement in "Magazine Tack-Hammers," was erroneously written and printed "of same place," (*i. e.*, Morris, Indiana), whereas said residence should have been written and printed *Washington, District of Columbia*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 20th day of November, A. D. 1894.

[SEAL.]

JNO. M. REYNOLDS,
Assistant Secretary of the Interior.

Countersigned:

S. T. FISHER,
Acting Commissioner of Patents.