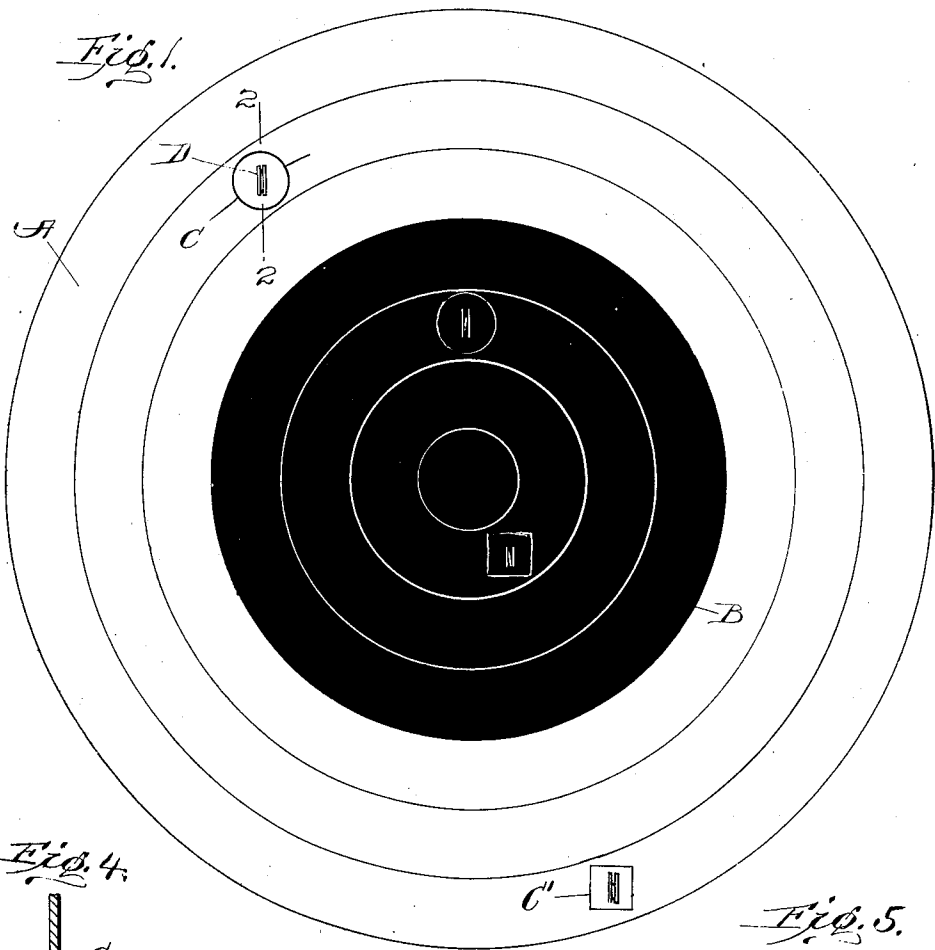
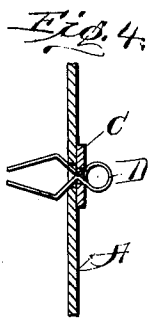
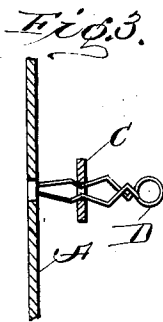
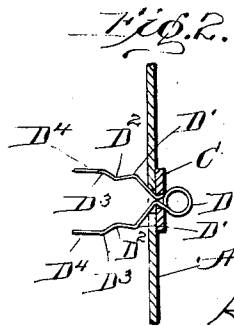
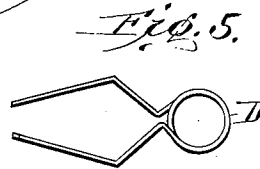


No. 849,125.

PATENTED APR. 2, 1907.

H. B. HOLLIFIELD.
TARGET ATTACHMENT.
APPLICATION FILED NOV. 23, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

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TARGET ATTACHMENT.

No. 849,125.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed November 23, 1906. Serial No. 344,679.

To all whom it may concern:

Be it known that I, HORATIO B. HOLLIFIELD, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Target Attachments, of which the following is a specification.

In practice with small-arms, especially in range practice as distinguished from gallery or indoor practice, it is common to use a target which does not stop the balls, but is perforated by them, and it is important for obtaining correct scores that the result of each shot should be properly recorded. To facilitate keeping such score, it is common to paste over each aperture a disk of paper or "paster," as it is usually called. Such pasters previously gummed are purchased in quantity by the different marksmen; but their use causes serious annoyance and delay. At best the selection, moistening, accurately applying, and temporarily holding the paster in place take the time of the whole team, and weather conditions often add greatly to this loss. Besides, the target-surface is commonly not favorable to adhesion, and in dry weather many pasters curl up and drop off, wind adding to the difficulty. Rain makes conditions still worse, making permanent adhesion doubtful, and, still further, the pasters often stick together, and if it be also warm the gum deteriorates to such an extent that it is common on a range to see paste applied to the individual pasters while whole team waits.

To avoid these evils and to secure independent advantages are the general objects of this invention.

The invention involves the use of a spring instead of an adhesive to hold in place a hole-covering plate corresponding to the paster above mentioned, the plate being made of paper-stock, metal, or other suitable material. The springs project from one face of each plate, and preferably each has upon its opposite or outer face a projection to be conveniently grasped by the fingers in attaching and detaching the plates, the spring making both operations easily possible. Usually the plates are made black for bull's-eye shots and of some other color for other portions of the target, and they may by difference in outline or color distinguish the several marksmen.

In the accompanying drawings, Figure 1 shows the face of a range-target in use. Fig. 2 is a section on the line 2 2, Fig. 1. Fig. 3 is

a similar section showing the hole-covering device in position for attachment. Fig. 4 is a like section showing a slight modification. Fig. 5 shows the spring device of Fig. 4 detached.

In these views, A B represents an ordinary range-target face with four hole-covering plates C C' in position to cover corresponding perforations made by two marksmen, two of the plates being circular and the other two square. These plates are large enough to cover the perforations made by any balls likely to be used, and they have been made of tough cardboard or very heavy paper. Each plate, whatever its shape, is centrally perforated to receive a spring attaching device consisting in this instance of a spring-coil D of one or two turns having its end portions carried outward from the coil in the same general direction as resilient arms. These arms, which are but slightly separated near the coil, diverge gradually and equally to points D', considerably more than the target's thickness from the coil, then converge gradually and equally to points D², then again diverge to points D³, and finally again converge to points D⁴, where they terminate. The spring thus formed has its arms compressed and passed through the plate C or C' until the plate rests at the nodal point D³, as shown in Fig. 3, when the device, called by those who use them a "pin-sticker," is ready for use, the plate holding the two arms so near together that the part projecting beyond the plate passes freely into the perforation to be covered. The device being held by the coil is pushed directly toward the face of the target, against which the plate rests when the free ends have been properly inserted in the aperture, and thereby the spring-arms are pressed together by the resistance of the plate as they advance through both plate and target until the points D' pass the plate. From this point on until the coil arrests their advance the arms gradually spring apart until the parts have substantially the position shown in Fig. 2. Here the resilience of the arms tends to throw them still farther outward, and this force which presses the inclined portions against the marginal portions of the rear face of the target obviously tends to hold the plate firmly against the front face of the target. The plates are usually left in place until the agreed number of shots have been fired by all those using that target, when all of them may be quickly withdrawn by means of the

coils. The plates may then be slipped forward on the arms to the position shown in Fig. 3, when they are ready to be used again.

The form illustrated in Figs. 4, 5 is similar to that already described except that its arm lacks the last diverging and converging portions and the free ends of the arms are normally so close together that they readily enter the aperture to be covered. In this case the plate is originally and permanently in the place on the spring which it finally occupies in the first form and is not concerned in pressing the arms together when the device is pushed into place on the target. The walls of the aperture in the target must themselves bear the strain of pressing the arms together. Where the target is not too thin and readily torn, this form is preferable, being somewhat simpler; but the form first described works well under all conditions. It may be observed that after these devices have been removed the target is just as available as at present for otherwise covering the holes preparatory to another series of shots, and, further, that these springs may be readily used for holding larger disks, technically termed "spotters," often temporarily displayed on the target to show to distant marksmen the exact location of any hit, thus taking the place of another unsatisfactory device now used. It may further be remarked that these devices also afford a quick and always ready means for reinforcing and putting in condition for going on with a contest targets that accidentally become torn or injured after some shots have been fired. It is a simple matter to fasten on another bull's-eye piece with these devices, and the operation requires but a few seconds, while under the common system such target is necessarily out of commission, causing delay and annoyance.

While my devices have been described in connection with their use in range practice, where their use avoids certain difficulties not found in indoor work, they are equally convenient wherever perforable targets are used, as they are very largely in gallery pistol practice.

What I claim is—

1. For covering individually bullet-holes in targets, a hole-covering plate provided upon

one face with a spring adapted to enter a bullet-hole and by its resilience yieldingly resist withdrawal.

2. In devices for covering individual bullet-holes in targets, a hole-covering plate provided upon one face with a spring adapted to enter a bullet-hole and by resilience to resist withdrawal, and having upon its opposite face a projection adapted to be grasped by the fingers, for withdrawing it.

3. In devices for covering individual bullet-holes in targets, a hole-covering plate provided upon one face with a spring device adapted to pass through the target in such hole and to yieldingly engage the target's rear face.

4. In devices for covering a bullet-hole in a target, a plate provided upon one side with nearly contiguous spring-arms diverging gradually and then gradually converging; whereby the arms readily enter a bullet-hole, spring toward each other when pressed on in the same, recoil as the wider part emerges, and thereby engage the rear face of the target and hold the plate firmly against the same.

5. The combination with spring-arms lying side by side and connected at one end and further first diverging near the point of connection, then converging, then again diverging and converging in like manner, of a centrally-perforated plate adapted to be pushed over said arms from their free ends, substantially as and for the purpose set forth.

6. The combination with a spring-coil having its constituent wire extended outward as two initially adjacent resilient arms first gradually diverging, then gradually converging, then again in like manner diverging and converging, of a centrally-perforated plate adapted to be passed over said arms until adjacent to said coil.

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

HORATIO B. HOLLIFIELD.

Witnesses:

J. JEROME LIGHTFOOT,
WALLACE GREENE.