No. 643,548. Patented Feb. 13, 1900.

E. F. SMITH.

TRAP.

(Application filed Mar. 22, 1899.)

(No Model.)

Fig. 1.

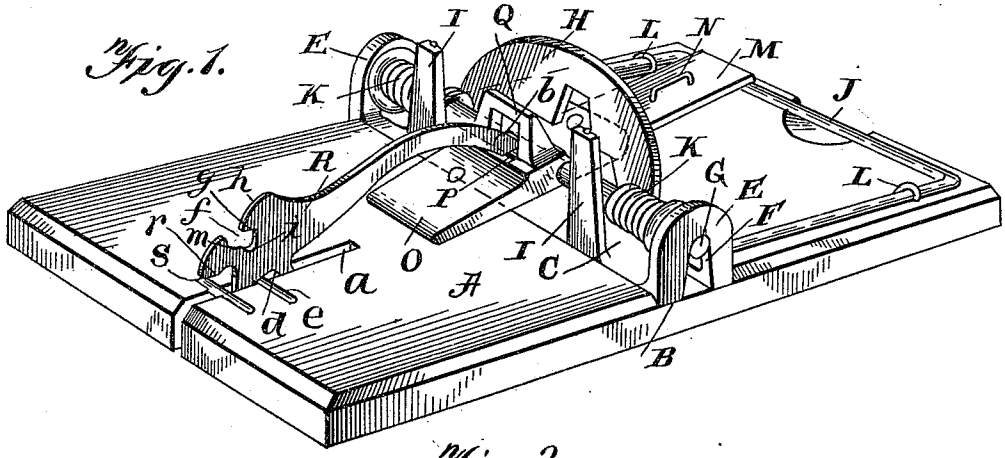


Fig. 2.

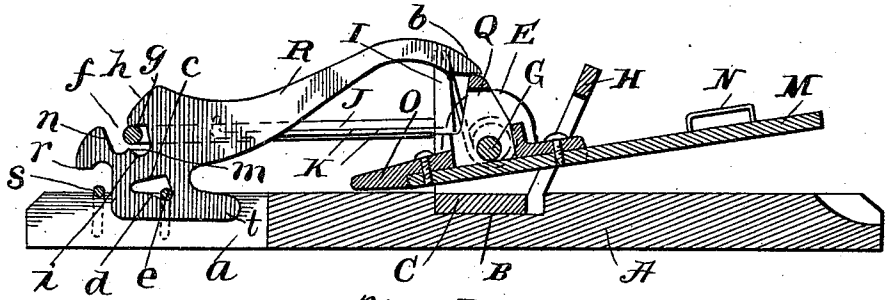


Fig. 3.

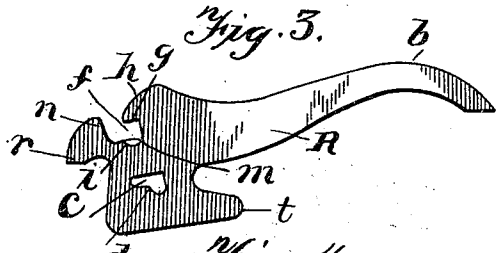
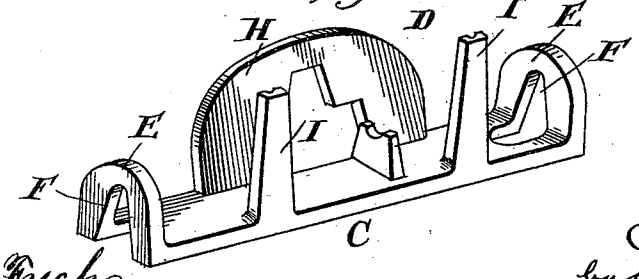


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD F. SMITH, OF ROCHESTER, NEW YORK, ASSIGNOR TO JOSIAH ANSTICE, OF SAME PLACE.

TRAP.

SPECIFICATION forming part of Letters Patent No. 643,548, dated February 13, 1900.

Application filed March 22, 1899. Serial No. 710,080. (No model.)

To all whom it may concern:

Be it known that I, EDWARD F. SMITH, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Traps, of which the following is a specification.

My invention relates to improvements in traps; and it consists in the construction and arrangement of parts, which will be fully described hereinafter and particularly referred to in the claims.

The primary object of my invention is to provide a trap having a spring-jaw and an automatically-setting latch or trip, whereby when the jaw or bail is carried to the setting position the latch automatically catches the bail and sets the trap.

Another object of my invention is to construct a cheap trap composed of a wooden base with a centrally-arranged transverse casting carrying the operating parts of the trap, excepting the trigger.

In the accompanying drawings, Figure 1 is a perspective view of a trap embodying my invention, the parts being in an unset position. Fig. 2 is a central longitudinal sectional view showing the parts in a set position. Fig. 3 is a detached plan view of the trigger. Fig. 4 is a detached view of the transverse casting with the parts detached therefrom.

A is a base composed of wood and having an intermediate groove B. Situated within this groove is a casting C, having a base portion D fitting within the slot or groove B and with upwardly-projecting ears E, having openings F for the reception of the pivotal rod G. The front end of this casting is provided with a U-shaped bridge or guard H, and at the rear edges of the casting are the upwardly-projecting arms I. The bail J has its ends curled around the shaft or pivotal rod G, and springs K are coiled around the shaft, with their inner ends extending upward and engaging the projections upon the rear side of the casting, the forward ends of the springs projecting forward, with the laterally-bent ends L engaging the sides of the bail J.

The bait-platform consists of a wooden portion M, having a staple or other device N, by means of which the bait is attached thereto, and attached to the top of the inner ends of this wooden piece is a casting O. The pivotal rod G freely passes between the casting O and the wooden portion M of the bait-platform, whereby the bait-platform is readily tilted by a slight downward pressure upon the bait end thereof. The casting O of the platform is provided with an upwardly-projecting arm or shoulder Q just over the pivotal shaft, as clearly shown. This projection is cut away or U-shaped in longitudinal contour, whereby the inner end of the trigger R will rest within and under the said projection.

The rear end of the wooden base A is provided with a longitudinal slit *a*, in which are situated or pivoted the outer ends of the latch R. The forward or inner end of the latch has its upper surface rounded, as shown at *b*, whereby when the inner end is forced upward, in a manner to be hereinafter described, in the act of setting the trap it will carry the forward end of the bait-platform down and permit the release of the latch from below the projection of the bait-platform casting O. The outer end of the latch R is provided with a pivotal opening *c*, preferably of an angular form, the lower wall of the latch being on an incline and provided with an intermediate projecting shoulder *d*, whereby the pivotal staple or pin *e* is caught in the forward end of this pivotal opening, as shown clearly in Fig. 2, to prevent the trigger, when the trap is set, from having any forward motion. It will be clearly noted from Fig. 2 that in a set position the shoulder *d* locks the trigger against forward movement, since the pivotal pin or staple *e* rests against the forward end of the opening *c* and in front of the shoulder *d*.

The upper rear end of the trigger is provided with a bail catching or locking opening *f*, having its upper forward ceiling or wall provided with an abrupt shoulder *g*, which catches and holds the bail when the trap is being set, as illustrated in Fig. 2. The upper edge of the trigger just in front of the opening *f* is cut away or inclined, as shown at *h*, whereby when the bail is being carried into the setting position it will strike

this inclined portion and force the trigger forward. The bail then, in the continuous movement for setting the trap, strikes the irregular lower wall *i* of the locking-opening *f*. This rear wall is provided with an intermediate projection *m*, and the bail after sliding off the incline *h* strikes the curved outer end of the irregular bottom *i*, which raises the trigger, and the continuous downward movement of the bail J tilts the trigger and causes it to slide backward upon its pivotal staple and its inward free end rests upon the projection Q of the bait-platform, and in this position when the bail is released it is caught by the shoulder *g*, as illustrated in Fig. 2, its inwardly-projecting curved ends being locked by engagement with the projection Q of the bait-platform, as will be readily understood, and which sets the trap ready to be tripped by a slight downward movement given the bait end of the bait-platform.

It will be noted that the casting O on the inner end of the bait-platform weights the inner end of the platform and holds it down with the forward end up, as shown in Fig. 1. The peculiar shape of the locking-opening *f* is what insures the automatic setting of the trap, which is an important feature of my present invention.

In traps of this character it has heretofore been necessary to arrange the inner end of the trigger after the bail has been caught thereby. In my trap, however, the engagement of the trigger by the bail automatically sets the trap. The construction is cheap and makes a very sensitive trigger.

The rear end of the trigger is provided with a projecting shoulder *r*, adapted to engage a stopping element or member *s*, extending across the slot in the base. The pivotal end is also provided with a forwardly-extending portion *t* for the purpose of preventing the oscillation of the trigger.

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

1. A trap comprising a base, a spring-actuated bail or jaw, a pivoted bait-platform, a trigger pivoted at its outer end and having its inner free end adapted to engage the bait-platform, the pivoted end of the trigger having a locking-opening with a horizontal holding-shoulder, and an upwardly-inclined surface above the said shoulder for the purpose described.

2. A trap comprising a base, a spring-actuated bail, a bait-platform, a trigger pivoted at its outer end and having its inner free end adapted to engage the bait-platform, the pivoted end of the trigger having a holding-opening provided with a locking-shoulder, the lower wall of the opening having an intermediate projection for the purpose described.

3. A trap comprising a base, a spring-actuated bail, a bait-platform, a trigger pivoted at its rear end and having its forward free end adapted to engage the bait-platform, the pivoted end of the trigger having a holding-opening provided with a locking-shoulder, the upper edge of the trigger having an inwardly-extending incline over the locking-opening, and the lower wall of the opening provided with an intermediate projection whereby the trap is adapted to operate as described.

4. A trap comprising a base, a spring-actuated bail, a bait-platform, a trigger having an elongated pivotal opening and a holding-opening thereabove constructed to be engaged by the bail when the trigger is tilted and moved backward by the engagement of the bail therewith, substantially as described.

5. A trap comprising a base, a spring-actuated bail, a trigger having its outer end provided with an elongated pivotal opening having the lower wall thereof provided with an intermediate projection, and above the said pivotal opening having a holding-opening with a locking-shoulder, the holding-opening constructed to move the trigger endwise, substantially as described.

6. A trap comprising a base, a spring-actuated bail, a pivoted platform having its pivotal end weighted and provided with an upwardly-extending projection, a trigger pivoted at its outer end and having its inner free end adapted to rest below and under the said projection of the bait-platform, the pivoted end of the trigger having a bail-holding opening, the parts adapted to operate as described.

7. A trap consisting of the following members, a flat base, a casting attached intermediate the base and extending transverse thereof, the casting carrying a pivotal shaft, a spring-actuated bail upon the shaft, and a bait-platform pivoted upon the shaft, a trigger pivoted to the rear end of the base and having its forward free end adapted to engage the bait-platform and its pivotal end provided with a holding-opening, substantially as described.

8. A trap comprising a base, a bail, a trigger, and a pivoted bait-platform consisting of a flat bar and a casting attached to the upper side thereof having a pivotal-rod passage, a pivotal rod passing therethrough, and a rearwardly-extending weighted portion secured to the bait-platform, substantially as described.

9. A trap comprising a base, a bail, a trigger, a bait-platform comprising a flat bar, a casting attached to the upper side thereof having an intermediate shaft-passage, and an upwardly-extending locking-shoulder, and a pivotal rod passing through the said shaft-passage, substantially as described.

10. A trap comprising a spring-actuated bail, a bait-platform having an upwardly-projecting U-shaped locking-shoulder in combination with an endwise-moving trigger pivoted at its outer end and having its inner free end adapted to engage the said U-shaped projection, the upper edge of the inner end of the latch being curved or inclined and

its pivotal end provided with a bail-holding opening, substantially as described.

11. A trap comprising a flat base, having an intermediate transverse slot, a casting secured within the slot and carrying a spring-actuated bail and a pivoted platform, the rear end of the base having an intermediate longitudinal slot, and a trigger pivoted and supported within the slot, substantially as described.

12. A trap comprising a base, a spring-actuated bail, a bait-platform, and an endw isemovable pivoted trigger having a bail-locking shoulder and adapted to have its free end engage the bait-platform for locking it and holding the spring-actuated bail, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDWARD F. SMITH.

Witnesses:
ELLA MCAFFREY,
JOSIAH ANSTICE.