(No Model.)

# C. R. HART.

## CARTRIDGE EXTRACTING IMPLEMENT.

No. 358,928. Patented Mar. 8, 1887.

Fig. 1.

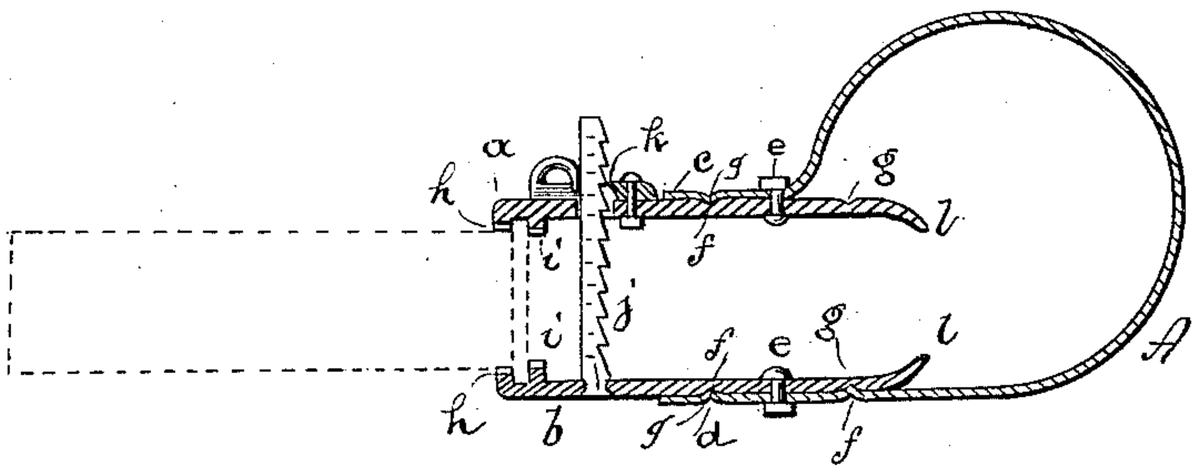



Fig. 2.

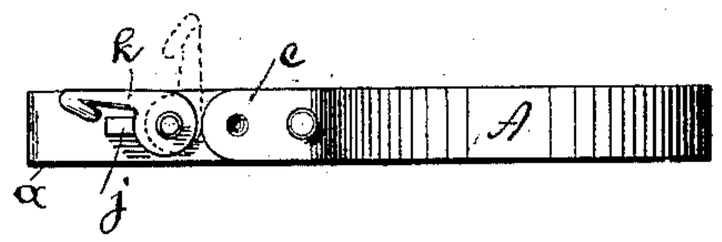



Fig. 3.

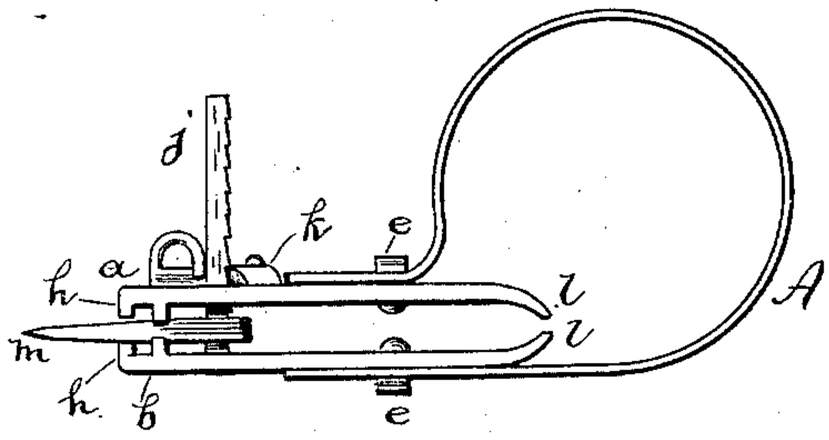
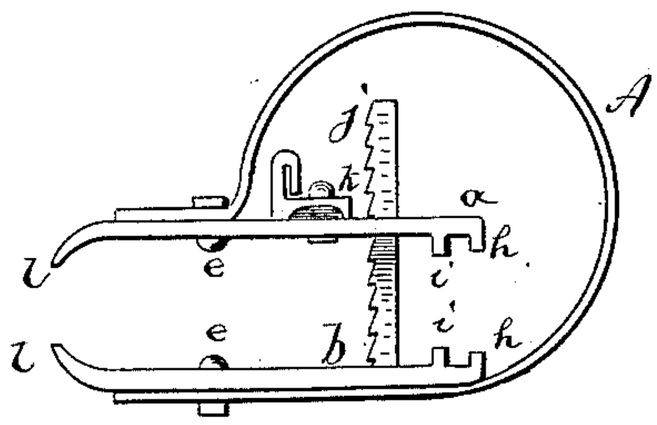



Fig. 4.




WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## CARTRIDGE-EXTRACTING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 358,928, dated March 8, 1887.

Application filed June 23, 1886. Serial No. 206,002. (No model.)

*To all whom it may concern:*

Be it known that I, CLARENCE RESCOME HART, of Sioux City, in the county of Woodbury and the State of Iowa, have invented a new and Improved Combination-Tool, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a longitudinal section. Fig. 2 is a plan view. Fig. 3 is a side elevation. Fig. 4 is a side elevation showing the jaws of the tool reversed.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

The object of my invention is to provide a simple and effective combination-tool to be used as a cartridge-extractor, as pinchers or tweezers, as a holder for holding a screw-driver, corkscrew, and other tools in position for use, also as a ring for retaining keys when the device is not in use as a tool-holder.

My invention consists in a pair of jaws pivoted to a bowed spring and provided with a ratchet-bar and catch for holding them in the required position, the jaws being adapted at one end to receive the flanged end of a cartridge and at the opposite end to act as tweezers for handling small objects.

The spring A, which connects the jaws *a b*, is bent over in circular form toward itself, then bent outward parallel with itself, forming the arms *c d*, to which are connected the jaws *a b* by the pivotal rivets *e*. The ends of the spring A are indented to form projections *f*, which are received in the cavities *g* in the outer surfaces of the jaws *a b*, the entrance of the projections into the cavities serving to hold the jaws in either of the two positions in which they may be placed. The jaws *a b* are bent inward at their ends, forming flanges *h*, for engaging the flange of a cartridge, and a short distance within the flanges *h* are formed flanges *i*, parallel with the flanges *h*. Near the flange *i* of the jaw *b* the ratchet-bar *j* is secured in the jaw *b* with its teeth facing the pivots of the jaws. The ratchet-bar *j* passes through an aperture in the jaw *a*, and to the jaw *a* is pivoted a swinging catch, *k*, which is adapted to engage the teeth of the ratchet-bar. The ends of the jaws *a b* opposite the ends having the flanges *h* are curved inward toward each other, forming tweezer-jaws *l*. When the jaws *a b* are to be used for extracting a cartridge or for holding a tool of any kind, they are arranged, as shown in Figs. 1, 2, 3, with the flanged ends of the jaws outward. The jaws are brought into engagement with the cartridge by placing the flanges *h* inside the flange of the cartridge, so that the cartridge-flange is received between the flanges *h i* of the jaws *a b*. The catch *k* is then brought into engagement with the ratchet-bar *j*, holding the jaws *a b* firmly in contact with the flange of the cartridge, when the cartridge may be readily extracted by grasping the spring A as a handle. The flanges *h* of the jaws *a b* are concaved to adapt them to fit the outer surface of the cartridge-shell.

When a screw-driver or other tool is to be used in connection with the jaws *a b*, a screw-driver blade *m*, having an apertured shank, is placed between the jaws *a b*, with the ratchet-bar *j* received in the aperture of the shank, as shown in Fig. 3.

When it is desired to use the tool as tweezers, the jaws are reversed, as shown in Fig. 4. When in this position, it is also used as a key-ring, the keys being slipped over the jaw *a*, while the ratchet-bar *j* is withdrawn from the aperture of the jaw.

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

1. The combination, with the bowed spring A, of the reversible jaws *a b*, pivoted to the inner surface of the spring, near its parallel ends, and means, substantially as herein shown and described, for holding the jaws in the required position.

2. The combination, with the bowed spring A, having parallel ends, of the reversible jaws *a b*, pivoted to the parallel ends of the spring A, provided with flanges *h i* at one extremity and having the curved ends *l* at the opposite extremity, the ratchet-bar *j*, secured

to the jaw *b* and extending through the jaw *a*, and the catch *k*, pivoted to the jaw *a*, and adapted to engage the ratchet-bar *j*, substantially as herein shown and described.

3. The combination, with the bowed spring A, provided with the projections *f*, of the reversible jaws *a b*, pivoted to the spring and provided with cavities *g*, for receiving the projections *f*, substantially as herein shown and described.

CLARENCE RESCOME HART.

Witnesses:
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