

(No Model.)

W. M. MORTON.  
PEN EXTRACTOR.

No. 459,788.

Patented Sept. 22, 1891.

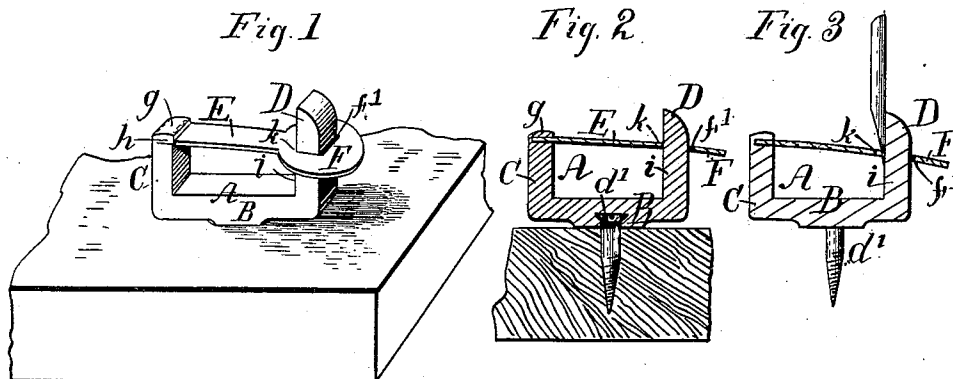


Fig. 6

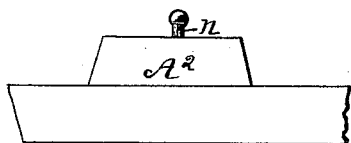


Fig. 7

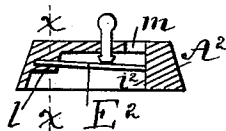


Fig. 8

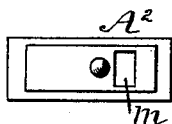


Fig. 9



Fig. 10

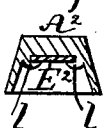


Fig. 4

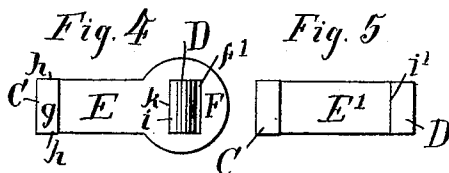


Fig. 5

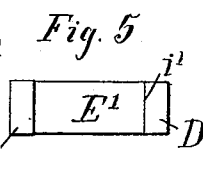


Fig. 11

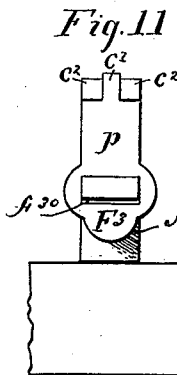


Fig. 12

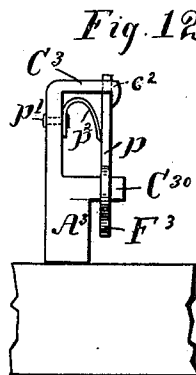


Fig. 13

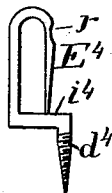


Fig. 14



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# UNITED STATES PATENT OFFICE.

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## PEN-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 459,788, dated September 22, 1891.

Application filed January 26, 1891. Serial No. 379,066. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM MARCUS MORTON, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Pen-Extractors, of which the following is a specification.

My invention relates to a pen-extractor or device for use in extracting pens from their holders, the object being to provide a clamping device adapted to automatically grip and hold a pen stationary while the pen-holder is being removed from it, which operation sometimes requires the exertion of a considerable degree of force when the pen is badly corroded in the holder and thereby firmly cemented in place.

The invention consists in the novel combination and arrangement of the spring-actuated clamping-jaw and its holding-frame, as hereinafter more fully described and claimed.

Referring to the drawings forming a part of this specification, Figure 1 is a perspective view of my pen-extractor, shown fastened upon a table in position for use. Fig. 2 is a central vertical longitudinal section through the extractor. Fig. 3 is a sectional elevation showing the clamp in the operation of holding a pen. Fig. 4 is a plan view of the device. Fig. 5 is a plan view of a modification. Fig. 6 is a side view of a modified form of the extractor, having the clamping-jaw concealed. Fig. 7 is a vertical lengthwise section through Fig. 6. Fig. 8 is a plan view of Fig. 6; and Figs. 9 and 10 are cross-sections on line *x*, Fig. 7. Figs. 11 and 12 show a modification in which the clamping-jaw is non-elastic and hinged to the frame, and Figs. 13 and 14 are modifications showing the frame and jaw formed integral.

Referring to the drawings, the preferred form of my pen-extractor is shown in Figs. 1 to 4, inclusive, wherein A designates a base or frame consisting of a horizontal portion B, provided with a rear upright C and a front upright D, projecting somewhat higher than the part C. A screw *d'* is firmly fixed in the part B of the base, having its head embedded or "cast" therein, and is adapted to be screwed into a table, desk, or other object to

mount the extractor in position for use, as shown in Fig. 1.

Secured upon the rear upright C is a horizontal spring-bar or clamping-jaw E, preferably shaped as shown, with an enlargement or finger-plate F at its free end, having a rectangular opening *f'* through it, fitting loosely over the upright and adapted to slide thereon. The fixed end of the said clamping-jaw is secured by forming a projecting lip *g* on the upright C, which is bent or closed down over and upon the end of the said jaw, thus firmly covering and embedding it in place, the side edges *h* of the projecting part also slightly closing over on the side edges of the jaw, all as shown in Figs. 1 and 2. The said spring-bar or clamping-jaw is arranged nearly at right angles to the inner holding face or abutment *i* of the front upright D, and thus remains when in normal position, and being held stationary at the opposite end the edge *k* of the opening adjacent to the abutment *i* of said upright will swing away therefrom as the end of the clamping-jaw is depressed by means of pressure upon the finger-plate F. Then if a slender object is placed between the said edge *k* and abutment *i* of the upright it will be held there by the action of the tension of the elastic jaw, which causes it to spring upward until checked by contact with the object, and any upward pull upon the object will then cause it to be tightly jammed and automatically held between the edge *k* of the jaw and the abutment *i*. Thus in operation if a pen is pushed down on the edge of the spring-jaw until it is caught between the edge *k* and abutment, as shown in Fig. 3, it cannot be drawn upward from the clamping mechanism, but will be tightly held therein while the pen-holder is being pulled off from it, the pen thus being readily extracted however firmly it may be corroded in the holder. The pen may then be easily released and taken from the extractor by depressing the finger-plate F, after which the jaw by its tension will spring up into normal position again in readiness for operation, the opening *f'* being sufficiently elongated at the outside to permit the movement described.

The construction of the extractor may be modified somewhat without departing from

the spirit of my invention. The finger-plate may be dispensed with, as shown in Fig. 5, the jaw E' terminating at the abutment  $i'$  and adapted to be depressed by pressure upon its upper side.

Figs. 6 to 10, inclusive, show a construction in which the clamping-jaw is hidden or inclosed, the base A<sup>2</sup> being shaped like an inverted trough provided with suitable depending projections  $l$ , which are closed over the clamping-jaw E<sup>2</sup> at one end to hold it, and having an opening  $m$  over the opposite end of the jaw and a vertical interior abutment  $i^2$  in juxtaposition with the said free end of the jaw. A headed stud  $n$  is inserted through the top of the frame and upset at the lower end to hold it in place, which stud is adapted when forced downward to depress the clamping-jaw to release the pen which is held between the jaw and abutment, inserted through the opening  $m$  in the manner of operating the extractor shown in Fig. 1.

Figs. 11 and 12 show a construction in which the clamping-jaw  $p$  is non-elastic and hinged to the frame A<sup>3</sup>, actuated by an independent spring  $p^2$ , fastened to the frame by a rivet  $p'$  and adapted to press against the inner side of the jaw, the device being represented as secured to a table in an upright position, with the free end of the jaw hanging downward. The clamping-jaw may be hinged to the frame by an ordinary hinge, but is preferably connected thereon as follows: The supporting part C<sup>3</sup> of the frame is formed with a pair of horizontal projections  $c^2$ , and the clamping-jaw is formed with a tongue  $c'$ , fitting between the said projections  $c^2$  of the frame, and the points of said projections are then closed over the jaw to hold the tongue  $c'$  loosely against the supporting part C<sup>3</sup>, with sufficient play thereon to permit the jaw to vibrate as required. The end of the jaw is formed with a perforation  $f^{30}$ , fitting the holding part C<sup>30</sup>, the projecting end F<sup>3</sup> comprising a finger-plate for pushing back the jaw to release the pen, the operation of the device be-

ing substantially similar to that shown in Fig. 1.

Figs. 13 and 14 represent an extractor formed of a single piece of spring-steel bent, as shown, to form an abutment  $i^4$ , screw  $d^4$ , and spring-jaw E<sup>4</sup>, the said jaw being ground away at the base  $r$  to insure flexibility. This device operates substantially in the same manner as the others, all of which may be fastened to a table in horizontal position, or be placed vertical on any suitable object in convenient reach of a person engaged in writing, and are effective instrumentalities for removing worn-out pens from their holders without delay or inconvenience or the necessity of soiling the fingers with ink or corrosive deposit.

I claim—

1. In a pen-extractor, the combination of a frame or base having a fixed holding face or abutment and an elastic or spring clamping-jaw fastened to the base, with its free end normally in juxtaposition with said holding-face and adapted to swing away therefrom in a path inclined thereto, the tension of the jaw being adapted to resist such movement thereof, substantially as and for the purpose specified.

2. In a pen-extractor, the combination of the base or frame A, provided with the uprights C D, means for securing said base to a table or desk, and an elastic clamping-jaw E, attached at one end to one of said uprights and having an opening at its free end receiving the opposite upright, the said jaw being fitted loosely and adapted to travel upon said upright and arranged nearly or substantially at right angles therewith, with the inner edge of the opening in juxtaposition with the corresponding face of the upright and adapted to clamp an object firmly thereon, substantially as and for the purpose specified.

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Witnesses:

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CHARLES W. STEBBINS.