E. WISEMAN.

TACK PULLER.

APPLICATION FILED JULY 24, 1914.

1,141,742.

Patented June 1, 1915.

Fig. 2.

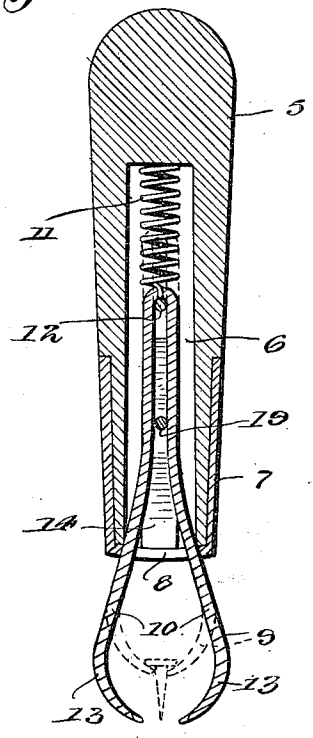


Fig. 1.

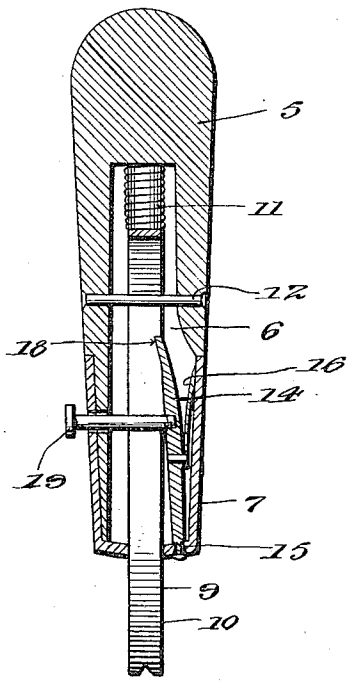


Fig. 3.

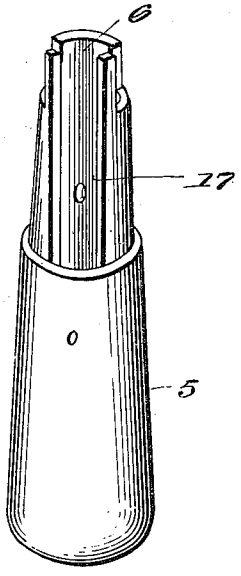


Fig. 5.

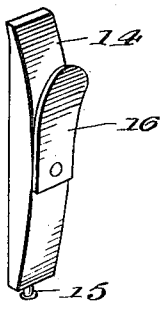
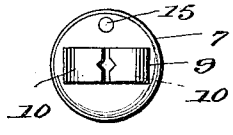


Fig. 4.



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UNITED STATES PATENT OFFICE.

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TACK-PULLER.

1,141,742. Specification of Letters Patent. Patented June 1, 1915.

Application filed July 24, 1914. Serial No. 852,859.

To all whom it may concern:

Be it known that I, ELMER WISEMAN, a citizen of the United States, residing at Milwaukie, in the county of Clackamas and State of Oregon, have invented new and useful Improvements in Tack-Pullers, of which the following is a specification.

This invention contemplates the provision of a tack puller comprising relatively movable extracting jaws adapted to be moved and automatically locked into gripping engagement with the head of the tack when downward pressure is brought to bear on the device, together with a novel construction of means for effecting the release of the jaws which are subsequently automatically returned to normal position, and more particularly to an improvement over the subject matter of the co-pending application filed by me on March 10, 1914 and bearing Serial No. 823,775.

Other objects will appear as the following description is read in connection with the accompanying drawing, the invention residing in the combination, construction and arrangement of parts hereinafter more fully described.

In the drawing forming a part of this application like numerals of reference indicate similar parts in the several views, and in which:—

Figure 1 is a longitudinal sectional view showing the jaws in active position. Fig. 2 is a similar view showing the jaws in normal position. Fig. 3 is a detail view of the handle of the device. Fig. 4 is an end view of the device. Fig. 5 is a detail view of the locking element.

The device essentially consists of a handle 5 which may be constructed from any suitable material, preferably wood, and having a longitudinally extending bore 6 opening at one end thereof. The handle 5 has a reduced portion for the reception of the ferrule 7 which may be secured thereto in any suitable manner. The ferrule is closed at its outer end except for the elongated slot through which and the bore 6 the extracting element 9 is mounted for sliding movement.

The extracting element is preferably constructed from a single length of resilient sheet metal and formed to provide companion relatively movable gripping jaws 10 normally held in open position under the combined inherent action of the metal from which the jaws are constructed, and the spring 11 which has one terminal secured to the inner end of the element 9 and its opposite end bearing against the closed end of the bore 6.

Extending transversely through the handle 5 and between the jaws 10 is a pin 12 adapted to normally engage the closed end of the element 9 to prevent the latter from being entirely projected from the bore 6 under the action of the spring 11. The jaws 10 are oppositely curved as at 13 for engagement with the end walls of the slot 8 whereby the jaws are moved toward each other into gripping relation as the element 9 is forced within the bore 6 during the act of gripping the tack.

With a view of automatically locking the jaws in gripping relation I employ a locking dog in the nature of an elongated member 14 longitudinally disposed within the ferrule and to one side of the slot 8. The member 14 has its lower end reduced as at 15 and fitted within a suitable aperture in the closed end of the ferrule to permit of a slight tilting movement of the same toward the center thereof, a leaf spring 16 being secured to said member and bearing against the walls of the ferrule through an opening 17 formed in the handle 5 to retain the free end of the member 14 disposed in the path of movement of the element 9 with which it is adapted to engage within the notches 18 on a predetermined position when the latter is forced within the core 6 during the application of the device to a tack or the like.

Mounted for transverse sliding movement through the ferrule 7 and having its inner end secured in a suitable aperture in the member 14 is a headed pin 19 which operates when pushed inwardly to disengage the member 14 from the element 9 whereupon the latter is automatically projected from the bore 6 under the action of the spring 11, and at which time the jaws 10 spread to open position under the inherent action of the material from which the same is constructed.

It is believed from the foregoing description when considered in connection with the accompanying drawing that the nature and advantages of the invention will be thoroughly understood without requiring a more extended explanation and therefore the same has been omitted.

What I claim is:

A tack extractor comprising a handle having a bore, a ferrule closing said bore and having an elongated slot in one end thereof communicating with said bore, an extracting element constructed from a single length of material and comprising companion normally separated jaws having portions extending into the bore and portions extending outwardly therefrom for engagement with the end walls of the slot so as to be moved thereby into gripping relation when downward pressure is applied to the handle, a spring pressed locking element arranged within the ferrule and loosely supported by the closed end thereof and adapted to operate through an opening in the handle for engagement with said jaws to retain the latter in gripping relation, a manipulating member secured to said element and projecting through the handle and adapted to be pushed inwardly to release said element, means for automatically projecting said jaws to normal position upon release of said element, and a pin extended transversely through the handle between the jaws and adapted to engage the closed end thereof to limit the forward movement of the jaws.

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

ELMER WISEMAN.

Witnesses:

L. W. WARREN,

M. L. KELSO.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."