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1,664,081

R. L. MEANS
COMBINATION TOOL

Original Filed Dec. 17, 1923

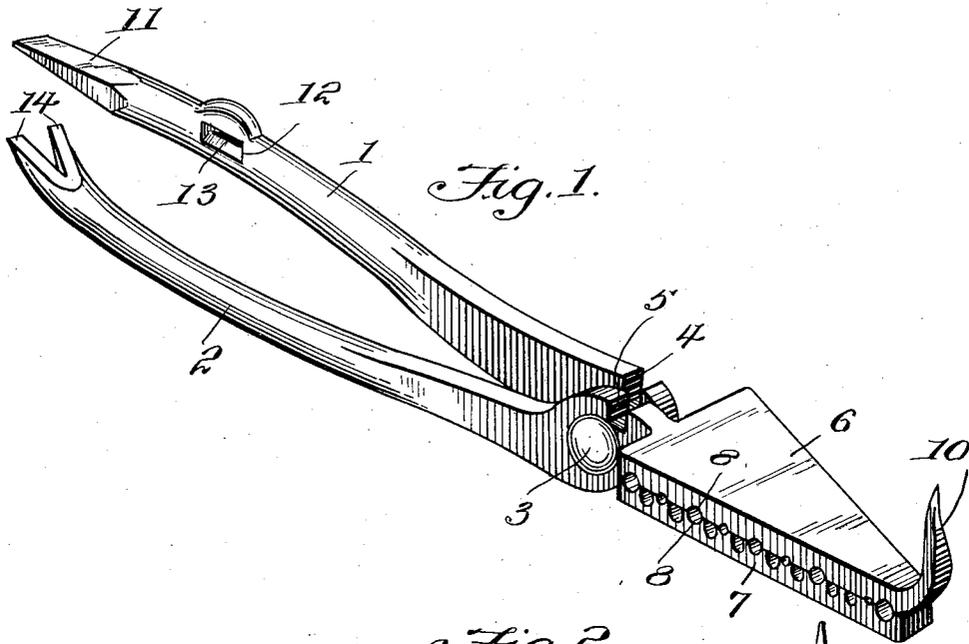


Fig. 1.

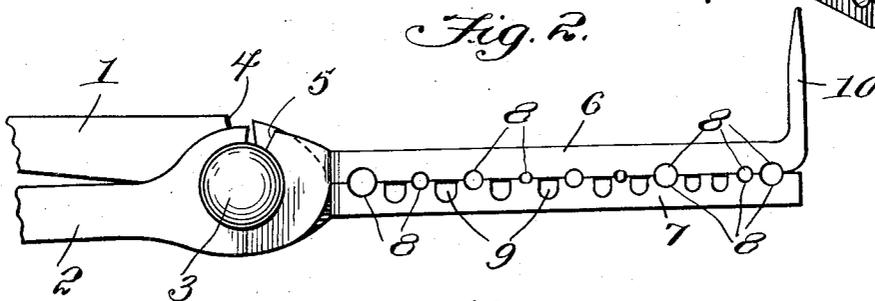


Fig. 2.

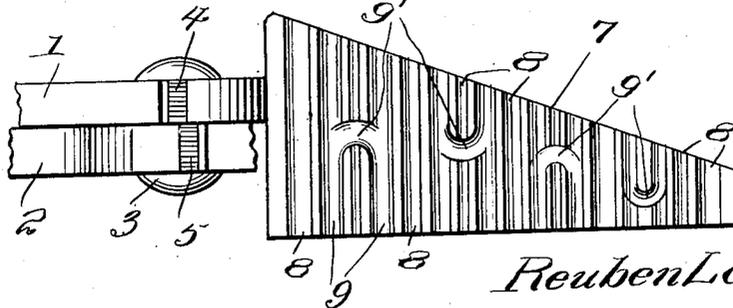


Fig. 3.

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WITNESS:

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UNITED STATES PATENT OFFICE.

REUBEN LEE MEANS, OF VALENTINE, TEXAS.

COMBINATION TOOL.

Application filed December 17, 1923, Serial No. 681,229. Renewed August 25, 1927.

My present invention has reference to a combination tool.

The object of the invention is the provision of a tool which may be employed for a great number of purposes by mechanics and others and which essentially includes a pair of pivotally connected handles that merge into jaws whose confronting faces are provided with series of laterally extending grooves of different sizes which are designed for the reception of nails and which provide a holding means therefor when the jaws are brought together so that the nails may be partly driven without the liability of bending thereof, and thereafter entirely driven home when released from between the jaws by the force of contact of the jaw end of the tool thereagainst.

A further object is the production of a combination tool comprising a pair of pivotally connected handles which merge into jaws, one edge of each jaw being straight, and the other being arranged at an angle from its inner to its outer end, both jaws having their confronting faces provided with lateral grooves for the reception of nails, whereby said nails are held in the initial driving thereof, one of said jaws being formed with additional grooves and with arched passages communicating therewith, said grooves and passages designed for the reception of staples which are effectively held between the jaws in the initial driving thereof, while one of said jaws has its outer and pointed end formed with a prong whereby driven staples may be extracted.

A still further object is the production of a combination tool that shall be in the nature of a nail holder, a staple holder, a staple extractor, a wire cutter, a wire bender, a nail extractor, and a chisel or screw-driver.

The drawing which accompanies and forms part of this application illustrates a satisfactory reduction of my improvement to practice, and wherein:

Fig. 1 is a perspective view of the improved tool;

Fig. 2 is a side elevation looking toward the jaw end thereof; and

Fig. 3 is a plan view, the jaw end of one of the handles being broken away so that the upper jaw is removed.

My improved tool is constructed wholly of steel, hardened iron, or other suitable metal, and includes a pair of oppositely

arched handles 1 and 2 respectively. These handles are connected by a pivot 3. One edge of each handle, opposite the pivot, is notched, as indicated by the numerals 4 and 5 respectively, the said notches being normally out of alinement and providing wire cutters.

The handles 1 and 2, at a slight distance from the pivot 3, merge into jaws 6 and 7 respectively. The jaws are substantially V-shaped in plan, or more strictly speaking, one edge of the jaws is straight and in alinement with the handles 1 and 2, while the inner portions of the jaws are widened to their opposite edges and the last-mentioned edges are beveled inwardly to the outer ends of the said jaws. The jaws, upon their inner faces are provided with series of spaced semicircular transversely arranged grooves 8. The sizes of the grooves vary, and these grooves are designed to receive therebetween nails, and when the handles are swung to bring the jaws 6 and 7 against each other, the nails will be gripped therebetween so that the said nails may be initially driven. Thereafter, the handles are moved to release the nails from the jaws, and the jaws are again brought together. The jaws 6 and 7 serve as hammers and may be forcibly brought against the nails to drive the same entirely home.

In addition to the semi-cylindrical transverse grooves 8, the jaw 7 has its inner face provided with other transverse grooves 9. These grooves 9 are disposed between the pairs of grooves 8, so that they are intersected by certain of the said grooves 8. The opposed pairs of grooves 9 communicate with each other through arched depressions 9'. The grooves 9 and the communicating depressions 9' are designed for the reception of staples and the jaw 6 when moved against the jaw 7, will tightly hold the said staples in the grooves for the initial insertion of the staples. The staples are driven home in the same manner as are the nails.

One of the jaws, preferably the jaw 6, has its reduced outer end formed with an outstanding prong 10, the said prong serving as an extractor for staples.

The handle 1 has its outer end, on its opposite faces, beveled, as indicated by the numeral 11, to provide an outer pointed end which serves as a chisel or as a screw-driver. Inward of the end 11, the handle 1 is preferably enlarged and is formed with a longi-

tudinal slot 12. The inner wall of this slot
 is sharpened, as at 13. The slot is designed
 to have a wire passed therethrough which
 is to be stretched and coiled. In the latter
 5 instance only one end of the wire is inserted
 through the slot and is gripped by the
 pointed or sharpened wall 13, and the tool
 is turned so that the wire is revolved there-
 around. The walls of the slot will also grip
 10 the wire to permit of the tightening of the
 strands thereof. Thus it will be noted that
 the tool will be found effective in the erec-
 tion of wire fences etc.

The outer end of the handle 2 is widened
 15 and pointed, and is centrally bifurcated to
 provide spaced prongs 14, and between these
 prongs the head of a nail to be extracted is
 gripped. The arched formation of the han-
 dle 2 provides the same with a fulcrum point
 20 which materially assists in the extraction of
 the nail.

From the foregoing description, when
 taken in connection with the drawing, it
 will be noted that my improved tool, while
 25 of a comparatively simple and cheaply con-
 structed nature, is strong and durable and is
 susceptible of successful employment for a
 number of purposes.

Having described the invention, I claim:—

A tool for holding nails or staples where- 30
 by such nails or staples may be given an
 initial driving movement into a surface and
 thereafter fully driven home, comprising a
 pair of pivotally connected handles, each of 35
 which having one of its ends merging into a
 flat jaw and which jaws are brought into
 contacting engagement when the handles are
 forced toward each other, each of said jaws
 having its confronting face provided with
 40 alining laterally arranged semicircular
 grooves which vary in area throughout the
 length of the jaws and which are designed
 to clamp therebetween nails of different
 cross-sectional diameters to hold the nails in
 the initial driving thereof, one of said jaws 45
 being formed with other laterally disposed
 grooves which are not in alinement with the
 grooves in the cooperating jaws, and said
 last-mentioned jaw having arched passages
 communicating with the last-mentioned 50
 grooves, whereby the shanks and the round-
 ed connecting ends of staples may be re-
 ceived in the said grooves for the initial
 driving of said staples.

In testimony whereof I affix my signature.
 REUBEN LEE MEANS.