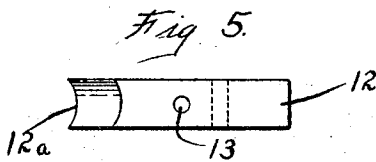
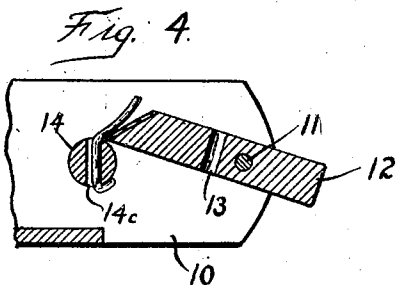
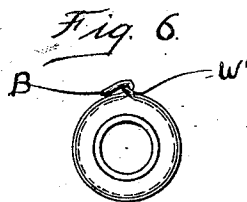
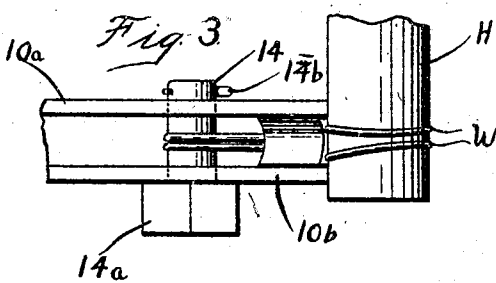
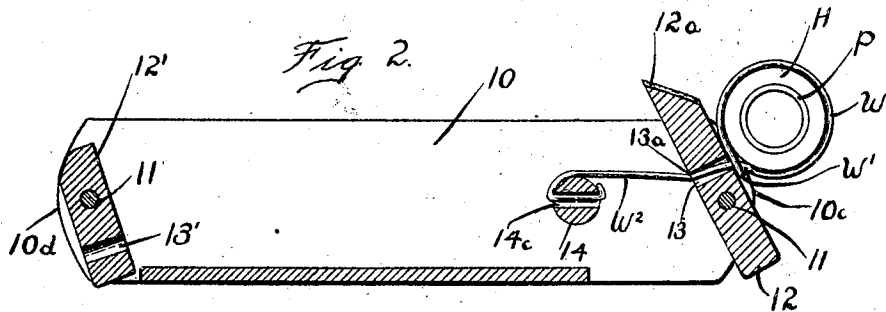
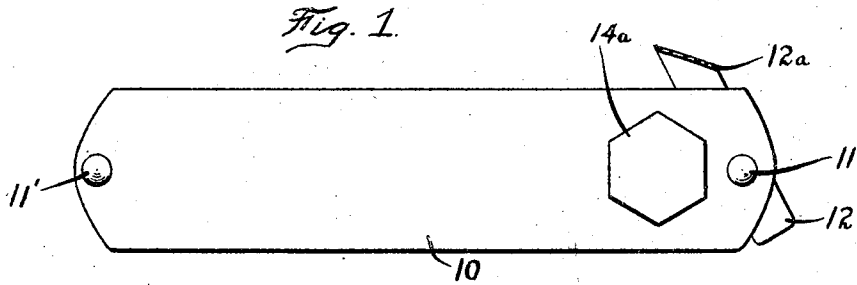


F. W. GUNN.
 HOSE CLAMPING TOOL.
 APPLICATION FILED MAR. 16, 1920.

1,353,338.

Patented Sept. 21, 1920.



Inventor
 Fred William Gunn
 By *Chas. C. Thomson*
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UNITED STATES PATENT OFFICE.

FRED WILLIS GUNN, OF DEDHAM, MASSACHUSETTS.

HOSE-CLAMPING TOOL.

1,353,338.

Specification of Letters Patent. Patented Sept. 21, 1920.

Application filed March 16, 1920. Serial No. 366,270.

To all whom it may concern:

Be it known that I, FRED WILLIS GUNN, a citizen of the United States of America, residing at Dedham, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Hose-Clamping Tools, of which the following is a specification.

This invention relates to tools for applying clamping wires or bands to hose or like flexible tubes for clamping and securing the same to pipes, nozzles, nipples, couplings, and the like. A principal object of the invention is to provide a simple and easily operated tool that is adapted to draw up a clamping wire tightly around the hose and then to sever it leaving a proper length of the wire ends projecting in most advantageous position for bending back to make the clamp secure. A further object is to provide a tool of the kind described equipped with means for severing and removing easily extremities of the wire that are caught in the device after an operative movement thereof. A still further object is to provide a wire clamping tool equipped with an operating element that is in one position adapted to cooperate with the wire for the drawing up thereof to leave ends projecting at the required angle, and in another position adapted to serve as a cutting off instrumentality for removing extremities of the wire. The foregoing and other objects and advantages of the invention will more fully appear from the following detailed description, and the distinctive features of novelty will thereafter be pointed out in the appended claims.

Referring to the drawings:

Figure 1 is a side elevation of a tool embodying the invention;

Fig. 2 is a longitudinal central section thereof;

Fig. 3 is a partial plan view looking from above in Fig. 2;

Fig. 4 is a fragmentary longitudinal section illustrating the manner of cutting off the wire extremities to remove the same from the device;

Fig. 5 is an elevation of the severing and wire manipulating element removed; and,

Fig. 6 is an end view of a coupling produced in accordance with the invention.

10 indicates the body and housing of the device and which also serves as a handle therefor. This comprises spaced apart side

portions 10^a, 10^b, the operative ends of which present convex edges 10^c. Adjacent one operative end is pivoted at 11 a transversely extending block or slab 12 having one end thereof relieved as indicated at 12^a to constitute a cutting edge. Through this slab a short distance to one side of the pivot 11 toward the end bearing the cutting edge, a hole 13 is formed through which the clamp wires are adapted to be passed. A stout pin 14 is mounted to turn in the body 10 parallel with the pivot 11 and spaced some little distance to the rear thereof. This pin has a squared or angular head 14^a at one end thereof adapted to receive a wrench or like operating tool and its other end is fitted with a cotter pin 14^b to hold the same from casual displacement. This pin has a hole 14^c through the intermediate portion thereof and through which the wires are adapted to be passed. In use a pipe or nipple P with the hose H thereon ready for clamping is provided a clamp wire W which as usual is doubled intermediate its length at W' and has its end portions passed through this double or loop to be drawn up and bent back as indicated at B for holding the clamp in position. In accordance with my invention, the extremities W² of the wire after being passed through the loop W' are passed through the hole 13 of the slab 12 and thence through the hole 14^c of the pin 14. Thereupon on turning the pin 14 by means of a suitable wrench or handle in a direction to the left or reverse clockwise, the wires are drawn up taut so as to clamp the hose closely and securely to the pipe and in this drawing up operation the wire will be bent at a small angle on the corner 13^a of the hole 13, this being due to the fact that the hole 13 is disposed at one side of the pivot 11 so that the slab 12 is made to occupy a somewhat angular position with respect to the lengthwise axis of the holder. This results in a severing of the wires at the corner 13^a after they are drawn up to the requisite degree of tautness for clamping, with the wire extremities thus left projecting outward from the loop W', adapted to hold the hose clamped and in readiness to be pressed back or hammered down as indicated at B to complete the clamp. Upon the severing of the wires at the point 13^a the extremities thereof will be wound around the pin 14 to a greater or less extent as well as being passed through the hole 14^c. These extremities of the wires

may now be quickly and easily freed from the pin 14 by swinging the slab 12 so that its cutting edge 12^c moves downward to engage the pin 14 as indicated in Fig. 4, it being noted that the dimension of said slab is correctly proportioned for this purpose. Thereupon on turning the pin 14 to the right or in a clockwise direction as seen in Fig. 4, the wire ends are severed directly over the hole 14^c and are thus disengaged from the pin. I preferably form the other end of the body or holder 10 with convex edges 10^a similar to the edges 10^c and pivot adjacent this end at 11' a slab 12' having a hole 13', the purpose of this being to permit a hose to be engaged with this end of the device for applying the clamping wire in cases where the projecting ends of the wires are of greater length. In this case the wires will be passed through the hole 13' and thence through the hole 14^c of the pin and the device operated otherwise as already described. I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

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

1. A hose clamping tool, comprising a holder having a member pivoted transversely at one end thereof, said member having a wire receiving hole therethrough at one side of said pivot and transversely thereof for receiving the wire ends therethrough, and a pin mounted in said holder in substantial parallelism with the pivotal axis of said member spaced from the operative end thereof and adapted to engage the extremities of the wire for drawing the same taut.

2. A hose clamping tool, comprising a holder having a slab pivoted transversely therein adjacent one end thereof, said slab having a wire receiving passage therethrough and having one end thereof formed to serve as a cutter, and a turning pin mounted in said holder back of said slab

adapted to engage the wire extremities, to draw the same through the passage of said slab and cause severance thereof against an edge of the wire receiving passage of said slab, the cutter end of said slab being then adapted to serve as a means for removing the severed ends.

3. A hose clamping tool, comprising a body constituting a holder having transversely pivoted adjacent one end thereof a slab with a wire receiving passage therethrough at one side of said pivot and having one end thereof formed with a cutting edge, and a turning pin mounted in said holder back of said slab with a passage therethrough to receive the wire extremities, said pin equipped with means for turning the same to draw up the wire and finally cause severance thereof by engagement with an edge of the wire receiving passage of said slab, said pin being in position for co-action with the cutting edge of said slab to sever and remove the detached wire ends.

4. A hose clamping tool, comprising a body constituting a holder with slabs transversely pivoted adjacent each end thereof, each of said slabs having a wire receiving passage therethrough at one side of its pivot, and a turning pin mounted intermediate the length of said holder adapted to draw up wire extremities from either end of said holder when projected through either of said slab passages.

5. A hose clamping tool, comprising a body constituting a holder with slabs transversely pivoted adjacent each end thereof, each of said slabs having a wire receiving passage therethrough at one side of its pivot, and a turning pin mounted intermediate the length of said holder adapted to draw up wire extremities from either end of said holder when projected through either of said slab passages, one of said slabs having an end thereof formed as a cutting edge and adapted to cooperate with said pin for severing and removing detached wire ends.

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

FRED WILLIS GUNN.

Witnesses:

LILLIAN K. HALEY,
HENRY C. THOMSON.