

No. 879,686.

PATENTED FEB. 18, 1908.

P. SMITH.
WIRE WORKING TOOL.
APPLICATION FILED AUG. 5, 1907.

Fig. 1.

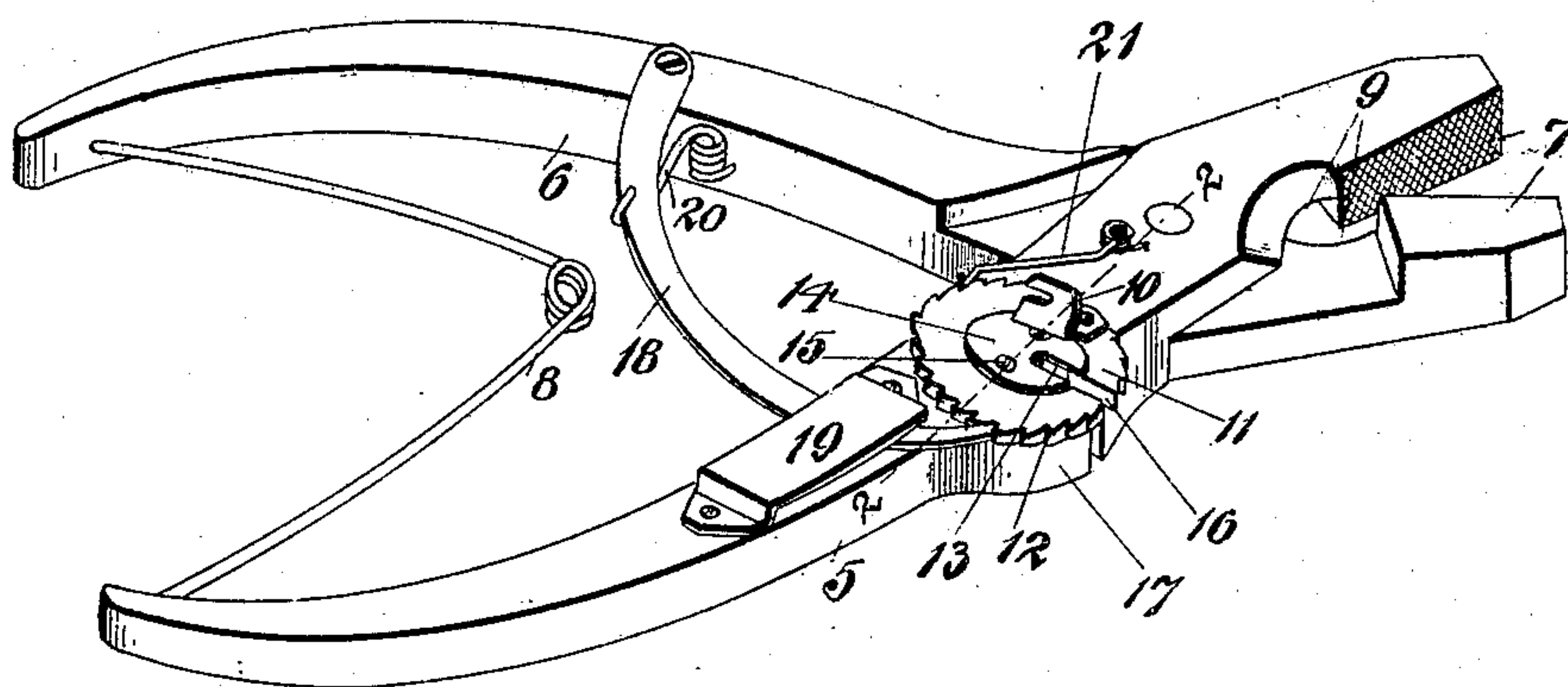


Fig. 2.

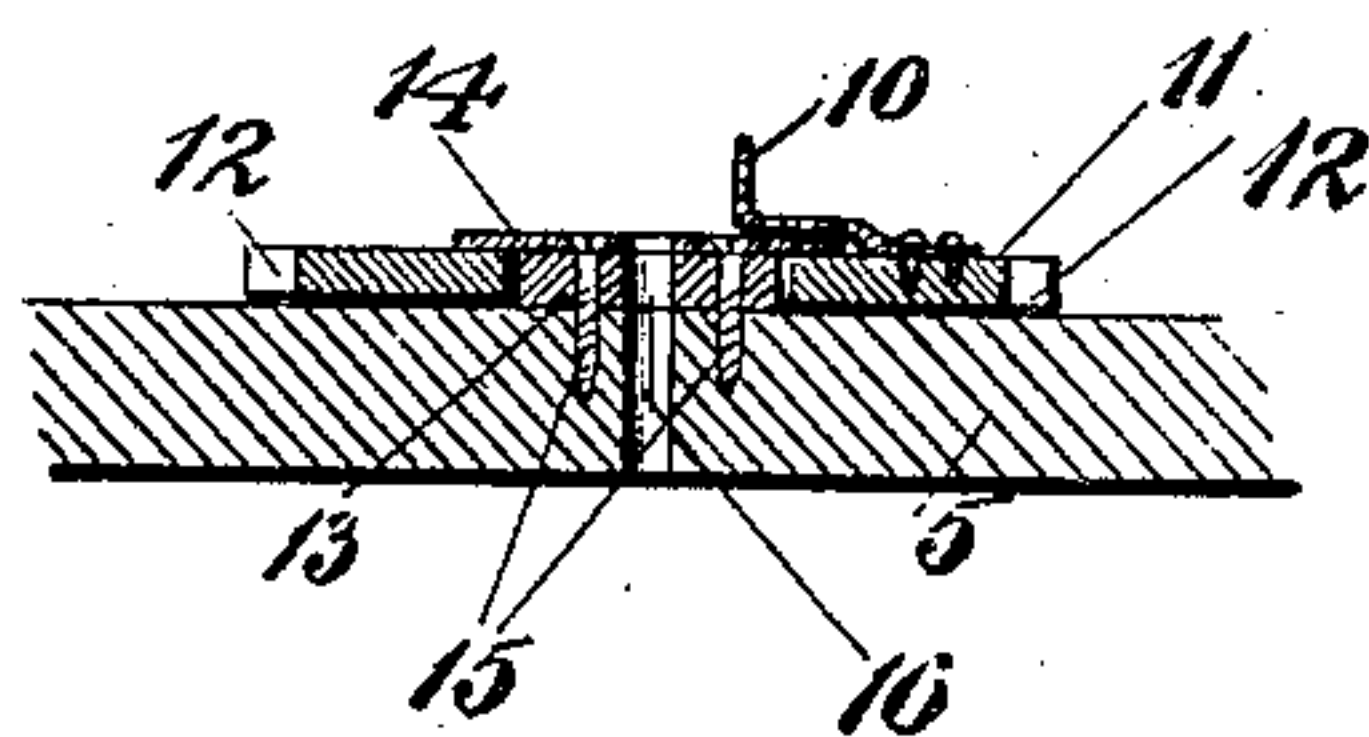
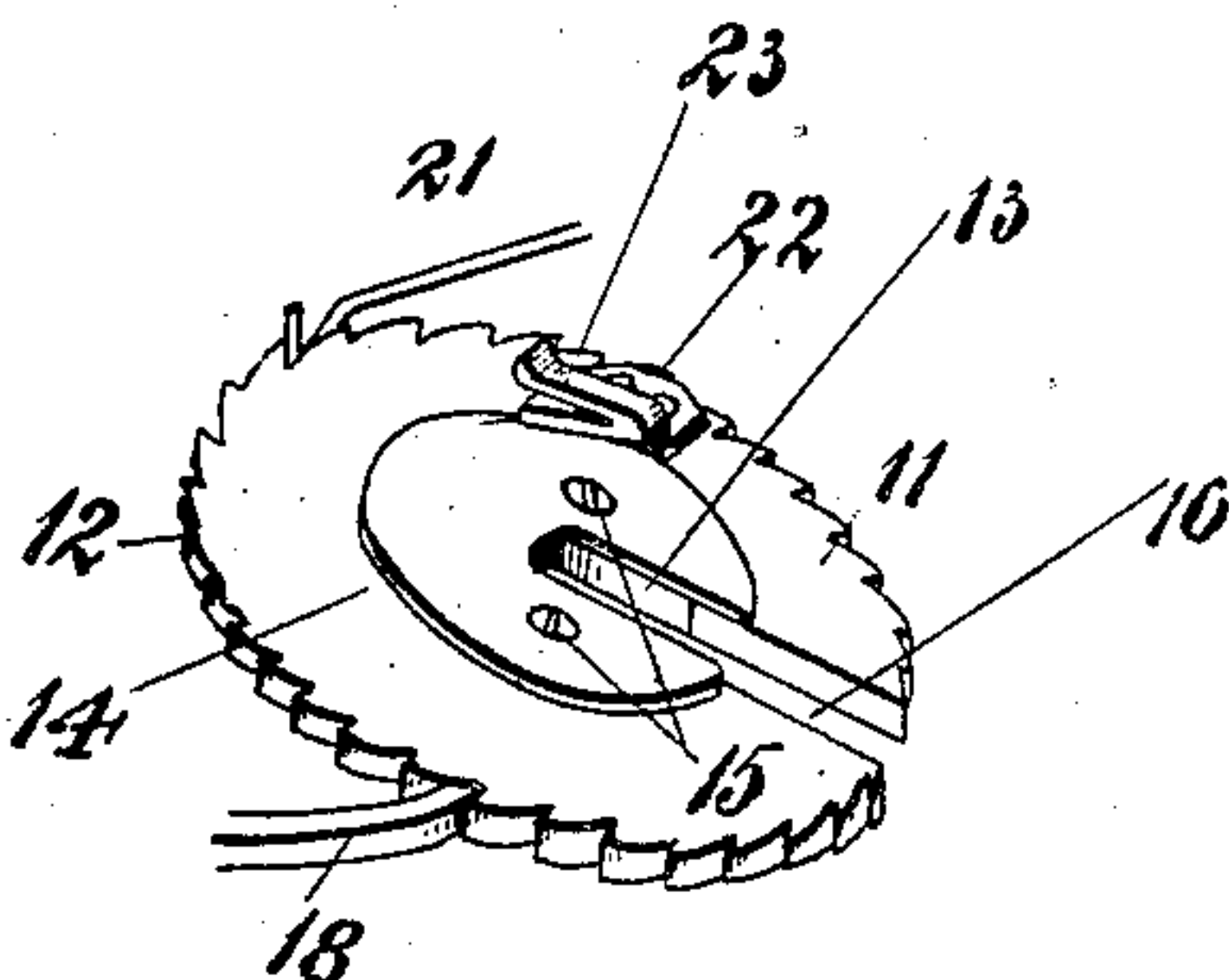


Fig. 3.



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PEARL SMITH, OF BARDWELL, KENTUCKY.

WIRE-WORKING TOOL.

No. 879,686.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed August 5, 1907. Serial No. 387,079.

To all whom it may concern:

Be it known that I, PEARL SMITH, a citizen of the United States, residing at Bardwell, in the county of Carlisle and State of Kentucky, have invented certain new and useful Improvements in Wire-Working Tools, of which the following is a specification.

This invention is a wire-working tool, and more particularly a hand-tool for coiling or twisting a piece of wire around another wire or other object, the invention being especially designed for applying insulator tie-wires.

The object of the invention is to provide a tool of this kind which is simple in construction and which can be easily operated.

In the accompanying drawing Figure 1 is a perspective view of the tool. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of a portion of the tool showing the same equipped with a modified form of wire-holder.

The general structure of the tool is that of pliers, the handles of which are indicated at 5 and 6, respectively, and the jaws at 7. The handles are crossed and pivotally connected, and are normally held open by a spring 8. The jaws are also shaped to form a wire-cutter 9.

The handle 5 carries a wire-twisting device comprising a wire-holding hook 10 mounted on a rotatable disk 11 having in its periphery ratchet-teeth 12. The ratchet-disk is secured to the handle 5 by means of a washer 13 fitting in a central circular hole in said disk, and a plate 14 fitting on top of the washer and overlapping the disk. The washer 13 and plate 14 are fastened together by screws 15 which also screw into the handle 5 whereby said washer and plate are secured thereto. The ratchet-disk, the washer and the plate have radial slots 16 for a purpose to be hereinafter described, and adjacent these parts the handle 5 is enlarged as indicated at 17 sufficiently to form a support therefor. In the enlargement is a slot which is adapted to register with the slots 16.

The ratchet-teeth 12 are engageable by a pawl 18 fastened to the handle 6 and extending under a guide-plate 19 on the handle 5.

A spring 20 secured to the handle 6 presses against the pawl and holds it in engagement with the ratchet-teeth 12. To the handle 5 is secured a spring 21 engaging the ratchet-teeth 12 to prevent backward motion of the disk 11.

In use the ratchet-disk 11 is turned until the slots 16 register. The line-wire is then placed in said slots, and the tie-wire is brought around the insulator and around the line-wire and placed in the hook 10. The handles 5 and 6 of the tool are then opened and closed which, by the engagement of the pawl 18 with the ratchet-teeth 12, rotates the ratchet-disk 11 whereby the tie-wire is coiled or twisted around the line-wire. The tie-wire will be held in the hook by the hand of the operator until the coil or twist is started. Both ends of the tie-wire are fastened in this manner.

In Fig. 3 is shown a modified form of wire-holder comprising a base-plate 22 secured to the ratchet-disk 11, and having spring-jaws 23 between which the tie-wire will be placed. This form of wire-holder is to be used if a tight wind or twist is desired, and the form of holder first described will be used if a medium tight wind is desired.

The tool herein described is simple in construction, and easy to operate, and by its use the tie-wires can be quickly applied.

I claim:

A wire-working tool comprising a radially slotted ratchet-disk mounted on one of the handles, and having a central opening, wire-holding means carried by the ratchet-disk, a radially slotted washer fitting in the afore-said opening, a radially slotted plate fitting on the washer and overlapping the ratchet-disk, means for fastening the washer and plate to the handle, and a pawl on the other handle engageable with the ratchet disk.

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

PEARL SMITH.

Witnesses:

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