Aug. 27, 1957 J. A. FATICA 2,804,109

COMBINATION AXE AND ADZ WITH ADJUSTABLE BLADE

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Fig. 1.

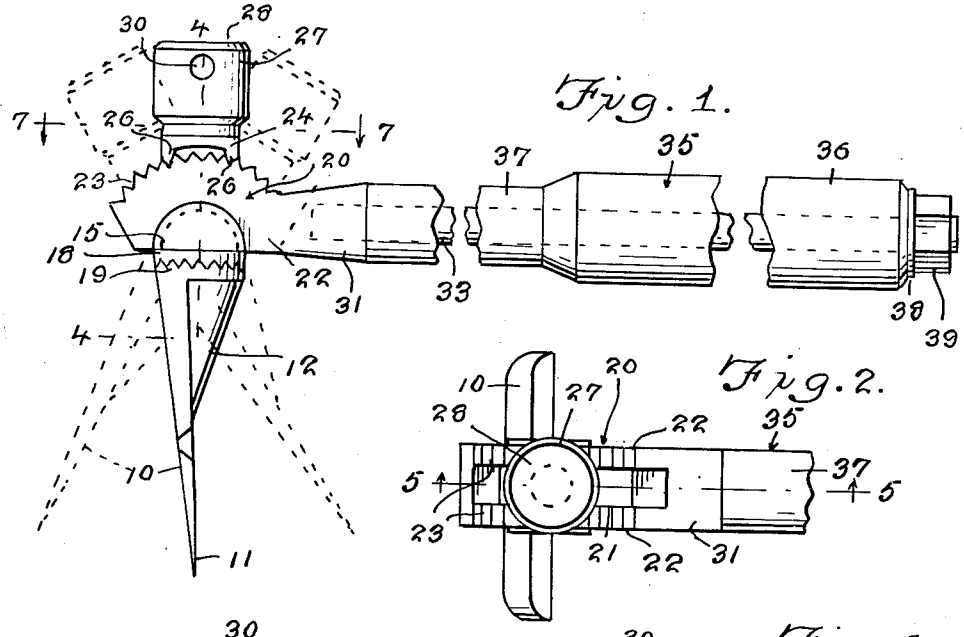


Fig. 2.

Fig. 6.

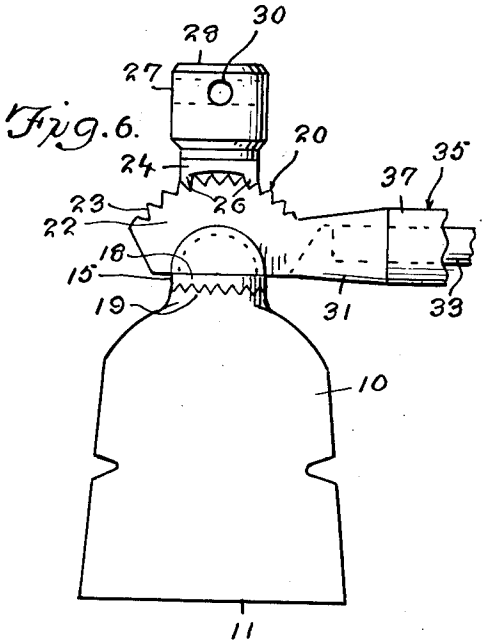
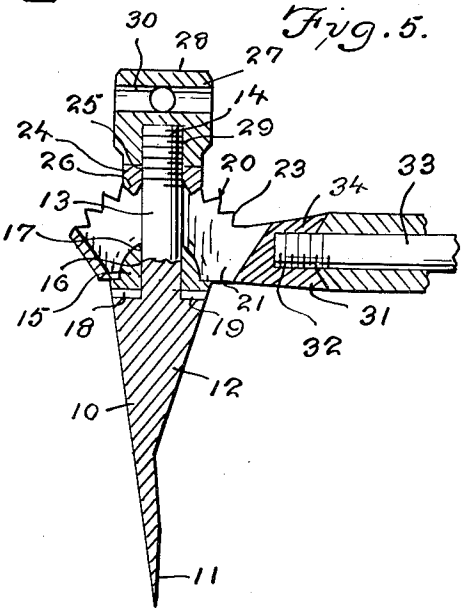


Fig. 5.



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Fig. 3.

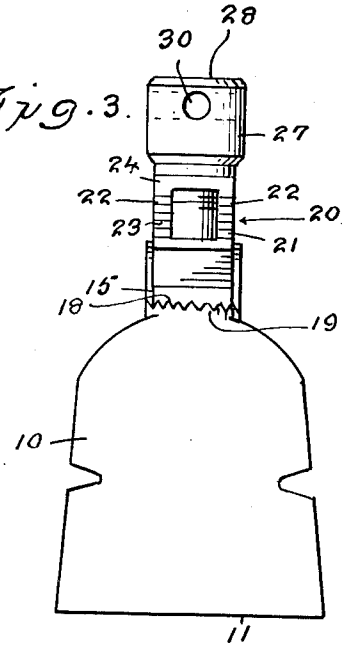


Fig. 4.

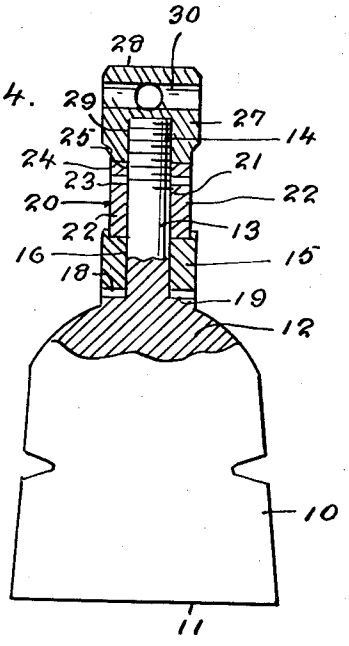


Fig. 7.

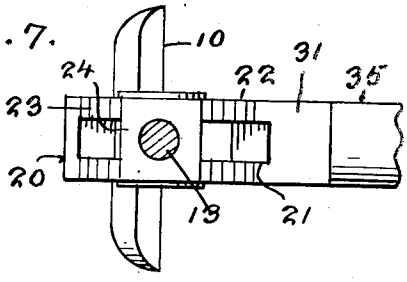


Fig. 8.

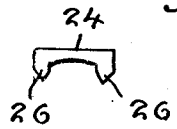


Fig. 9.

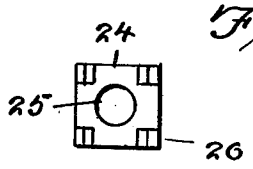


Fig. 10.

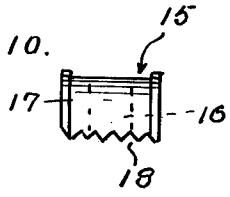


Fig. 11.

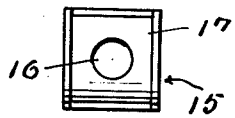
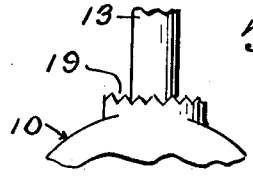


Fig. 12.



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2,804,109

COMBINATION AXE AND ADZ WITH ADJUSTABLE BLADE

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Application February 28, 1956, Serial No. 568,343

2 Claims. (Cl. 145—2)

This invention relates to a tool and more particularly to a combination tool which can be used as a hatchet, adz or scraper or the like.

This invention is an improvement over the combination axe and adz shown in my prior Patent No. 1,587,767.

The object of the invention is to provide a tool which includes a novel or improved means for locking the blade in its different adjusted positions.

Another object of the invention is to provide a combination axe or adz which includes a blade that is held in its various adjusted positions by means of interengaging teeth so that there will be no possibility of the blade accidentally moving from its adjusted position.

A further object of the invention is to provide an axe or adz which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanied drawings, forming a part of this application and in which like numerals are used to designate like parts throughout the same.

Figure 1 is a side elevational view of the tool of the present invention, and with parts broken away and in section.

Figure 2 is a fragmentary top plan view of the tool with the parts in the position shown in Figure 1.

Figure 3 is an end elevational view of the tool with the parts in the position of Figure 1.

Figure 4 is a sectional view taken on the line 4—4 of Figure 1.

Figure 5 is a sectional view taken on the line 5—5 of Figure 2.

Figure 6 is a side elevational view showing the blade in shifted position.

Figure 7 is a sectional view taken on the line 7—7 of Figure 1.

Figure 8 is an end elevational view of the body member.

Figure 9 is a plan view of the body member of Figure 8.

Figure 10 is an end elevational view of the ferrule.

Figure 11 is a plan view of the ferrule of Figure 10.

Figure 12 is a fragmentary elevational view showing the blade and upwardly extending shank.

Referring in detail to the drawings, the numeral **10** designates a blade which is provided with a lower cutting edge **11** and upper tapered portion **12**. Extending upwardly from the blade **10** and secured thereto or formed integrally therewith is a cylindrical shank **13** which is provided with an upper exteriorly threaded portion **14**. Mounted on top of said blade **10** is a support member **15**, Figure 5, and the support member **15** is provided with a central opening **16** through which extends the shank **13**. The support member **15** further includes an upper curved section **17**, and the bottom of the support member **15** is provided with a plurality of spaced apart teeth **18** which are adapted to engage teeth **19** on top of the blade **10**.

The numeral **20** designates a ferrule which is provided

with a slot **21** through which extends the shank **13**, and the slot **21** defines in the ferrule **20** a pair of spaced parallel side walls **22**. The side walls **22** are provided on their upper surface with teeth **23**.

Mounted above the ferrule **20** is a body member **24**, and the body member **24** is provided with a central opening **25** through which extends the shank **13**. The body member **24** is further provided with teeth **26** on its lower end which coact with or engage the teeth **23** on the ferrule **20**. The numeral **27** designates a poll which is provided with a flat end **28** that can be used as a hammer head, and the poll **27** is provided with a threaded recess or socket **29** which threadedly receives or engages the threaded portion **14** of the shank **13**. The poll **27** is further provided with a plurality of openings **30** whereby a suitable tool can be arranged in engagement with certain of the openings **30** in order to rotate the poll **27** as when it is being removed or replaced.

The ferrule **20** is provided with a projecting portion **31** which has a threaded socket or bore **34** therein, and a rod **33** has a threaded end portion **32** engaging the threaded bore **34**. A handle **35** includes portions **36** and **37**, and the handle **35** is mounted on the rod **33**. A washer **38** abuts an end of the handle **35**, and a nut **39** is provided for retaining the parts in their proper assembled position.

From the foregoing, it is apparent that there has been provided an axe or adz which is an improvement over the axe or adz shown in my prior Patent No. 1,587,767. In use, the tool can be gripped by the handle **35**, and with the blade **10** arranged in the position shown in Figure 1, the tool can be used as an adz. The blade **10** can be shifted to the position shown in Figure 6 so that the tool can be used as an axe. The blade **10** is retained immobile in its various shifted or adjusted positions due to the provision of the interengaging teeth. Thus, the support member **15** has the teeth **18** on its lower surface which engage the teeth **19** on top of the blade **10** so that accidental displacement or rotation between the blade **10** and support member **15** are prevented. Similarly, the teeth **26** of the bottom of the body member **24** engage the teeth **23** on top of the ferrule **20** so as to prevent accidental displacement between the ferrule and body member. The poll **27** threadedly engages the threaded portion **14** of the shank **13** whereby the parts are maintained in their proper assembled position. When it is desired to shift the position of the blade **10**, it is only necessary to loosen or rotate the poll **27** and this rotation of the poll **27** may be accomplished by inserting a suitable tool into one of the openings **30** and then rotating the poll **27**. By loosening the poll **27** on the shank **13**, the blade **10** can be adjusted to the desired position. As shown in Figure 1, the blade **10** can be moved from the solid line position to any of the dotted line positions so that the angular relationship or position of the blade **10** with respect to the handle **35** can be varied as desired.

The tool of the present invention can be used as a hatchet, adz, scraper or as a left or right hand hatchet at any angle. The flat surface **28** of the poll **27** provides a hammer surface and the poll **27** also serves as a nut to maintain the blade **10** immobile regardless of its adjusted positions. The body member **24** prevents accidental shifting of the parts, and the ferrule **20** may be made of any suitable material such as metal. The handle **35** may be made of any suitable material such as wood or plastic and the handle **35** is mounted on the rod **33**. The nut **39** holds the handle in place.

I claim:

1. In a tool, a blade provided with a lower cutting edge and an upper tapered portion, a first set of teeth on the upper portion of said blade, a cylindrical shank extend-

ing upwardly from said blade and provided with an upper threaded portion, a support member provided with a central opening receiving said shank and said support member further including an upper curved section, said support member further including teeth on its lower surface engaging the teeth on the upper portion of said blade, a ferrule arranged above said support member and provided with a slot receiving said shank, said slot defining in said ferrule a pair of spaced parallel side walls provided with teeth extending along their upper surfaces, a body member arranged above said ferrule and provided with teeth on its lower end engaging the teeth on top of said ferrule, said body member having a central opening through which said shank projects, a poll arranged above said body member and provided with a threaded recess engaging the upper threaded end of said shank.

2. In a tool, a blade provided with a lower cutting edge and an upper tapered portion, a first set of teeth on the upper portion of said blade, a cylindrical shank extending upwardly from said blade and provided with an upper threaded portion, a support member provided with a central opening receiving said shank and said support member further including an upper curved section, said support member further including teeth on its lower surface engaging the teeth on the upper portion of said blade, a ferrule arranged above said support member and

provided with a slot receiving said shank, said slot defining in said ferrule a pair of spaced parallel side walls provided with teeth extending along their upper surfaces, a body member arranged above said ferrule and provided with teeth on its lower end engaging the teeth on top of said ferrule, said body member having a central opening through which said shank projects, a poll arranged above said body member and provided with a threaded recess engaging the upper threaded end of said shank, there being a threaded socket in an end of said ferrule, a rod having a threaded end engaging said threaded socket in said ferrule, a handle mounted on said rod and including a pair of sections of different diameters, and a securing element mounted on the end of said rod for maintaining said handle on said rod.

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