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WOOD SPLITTING TOOL

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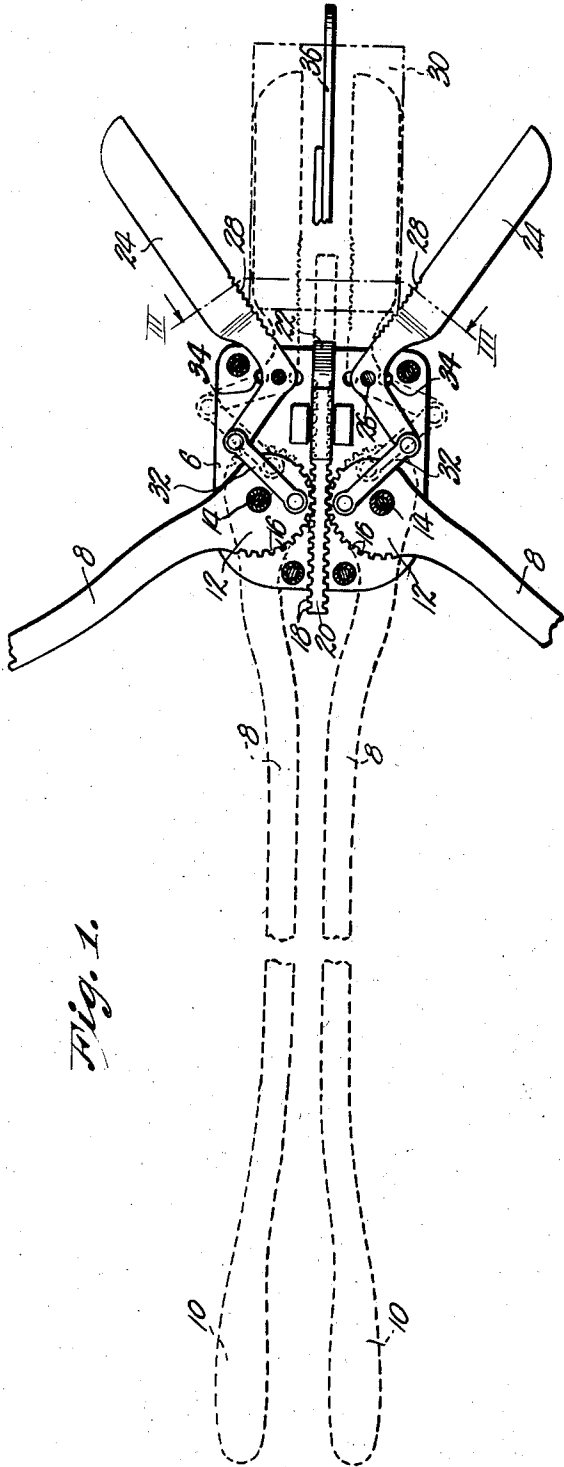


Fig. 1.

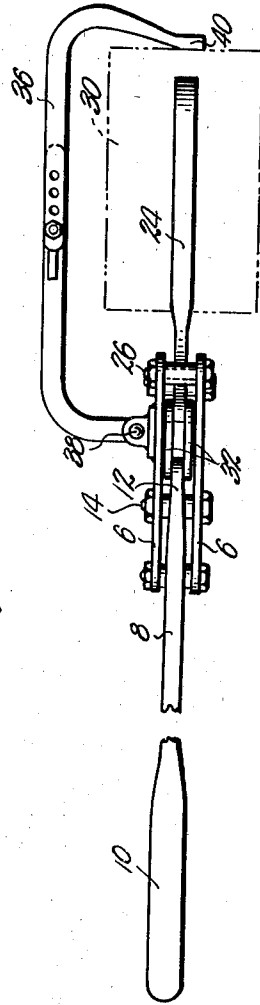


Fig. 2.

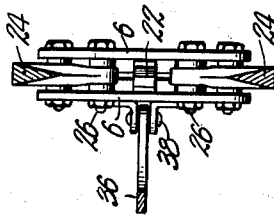


Fig. 3.

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WOOD SPLITTING TOOL

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4 Claims. (Cl. 145—1)

This invention relates to hand tools and particularly a wood splitting implement, and the primary object is to provide a device adapted for splitting short lengths of wood without the use of an ax or similar instrument, such as heretofore has been employed.

This invention has for a further aim, the provision of a wood splitting tool which has means for entering the wood being affected as the length thereof is secured in position, said means for entering the length of wood being disposed on a common plane and simultaneously movable into the body of the wood as the specially formed levers are manually operated.

A yet further object of this invention is to provide a tool for splitting short lengths of wood, which has a pair of blades, wedge shape in cross section, and provided with a length thereof which is contoured to secure the wood against displacement when the blades are first brought into engagement therewith.

Another object of this invention is to provide a wood splitting tool that will be strong, effective in operation, rugged, not likely to get out of order, and susceptible of splitting short lengths of wood in a quick and effective manner, all without the shortcomings heretofore encountered when the ordinary ax is employed for the purpose to which this tool is placed.

Heretofore, short lengths of wood have been split through the use of an ax or a wedge which is driven into the end or side of the piece, and unless one is particularly skilled in the manipulation of such instruments, the task becomes laborious and the results are not satisfactory because of the inaccuracies incident to swinging the ax, and further, because it is necessary to exert a tremendous amount of force to withdraw the ax blade or wedge body after it has been driven into the wood.

The splitting tool embodying the present invention provides specially formed blades, all of which are simultaneously projectable into the wood and two of which are opposed so that the pressure required to be exerted upon the operating levers, is equalized and the work thereby made easy.

The preferred embodiment of the invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a side elevation of a wood splitting tool made in accordance with the present invention, parts being broken away for clearness of disclosure.

Fig. 2 is an edge elevational view of the same; and,

Fig. 3 is an irregular cross sectional view through the tool taken on line III—III of Fig. 1.

A pair of plates 6 serve to maintain the component parts of the tool in proper relation and pivotally support levers 8, each of which has a handle portion 10 thereon for the operator to grip.

Each lever 8 has a head 12 thereon through which passes a pin 14 that is journaled in plates 6. Head 12 has an arcuate edge, concentric with pin 14 upon which is formed gear teeth 16 that mesh with teeth 18 on rack 20 which is reciprocally mounted between plates 6.

Rack 20 has a series of teeth 18 along each of two opposite longitudinal sides thereof so that both of levers 8 are simultaneously operable as rack 20 reciprocates rectilinearly.

The forward end of rack 20 has a piercing element 22 formed on one end thereof, which is in the same plane as the two opposed blades 24. Each blade 24 is pivotally mounted between plates 6 by a pintle 26.

Each blade 24 is L-shaped and pintle 26 passes therethrough at the point of juncture between the two legs of the L-shaped body of the blade. A portion of the length of each blade 24 is serrated as at 28 therealong adjacent to plates 6 and the zone where the block of wood 30 is first engaged when the tool is brought into operation. This special form of blade precludes slipping of the block and tool until blades 24 are moved into the body of the block a sufficient distance to insure against mal-adjustment.

A link 32 joins each blade 24 with head 12 of the adjacent lever 8 so that the force exerted at handles 10 is increased a sufficient amount to accomplish the work desired by the time it reaches blades 24.

A series of holes 34 through plates 6 permit moving pintles 26 which support the blades when different widths or diameters of wood blocks 30 are encountered.

A further means for keeping block 30 between blades 24 and against piercing element 22 is shown in Figs. 1 and 2. This holder 36 is adjustable as to length and is pivotally mounted as at 38 on one plate 6 so that its arm 40 may quickly and effectively engage the opposite end of block 30 from that being acted upon by blades 24 and element 22. This holder is used only when especially tough wood is encountered and if desired, may be removed from the tool when its assistance is not necessary.

Obviously, this invention contemplates wood splitting tools having physical characteristics other than that illustrated and described, and it is therefore desired to be limited only by the spirit thereof and scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A tool for splitting short lengths of wood comprising a pair of opposed blades, each wedge shaped in transverse cross section and having their cutting edges in proximal relation; a plate on each side of the blades at one end thereof for holding the blades in operative position; pintles pivotally securing the blades to the plates; a pair of levers pivotally secured near one end thereof to the plates; and links interconnecting the adjacent ends of the levers and said blades whereby the blades are drawn toward and from each other as the levers are so operated, said blades each having a serrated portion along a length thereof adjacent to the plates, said levers having means between the plates for operably interconnecting the former for simultaneous movement, said means including an element projectable into the wood being split as the blades enter the wood on each side of the element.

2. A tool for splitting short lengths of wood comprising a pair of opposed blades, each wedge shaped in transverse cross section and having their cutting edges in proximal relation; a plate on each side of the blades at one end thereof for holding the blades in operative position; pintles pivotally securing the blades to the plates; a pair of levers pivotally secured near one end thereof to the plates; links interconnecting the adjacent ends of the levers and said blades whereby the blades are drawn toward and from each other as the levers are so operated; a holder to engage one end of the wood and a wedge shaped, relatively short piercing element slidably mounted between the said plates and operably joined to the levers for movement outwardly therefrom against the other end of the wood as the levers are operated to move together the said blades.

3. A tool for splitting short lengths of wood comprising a pair of opposed blades, each wedge shaped in transverse cross section and having their cutting edges in proximal relation; a plate on each side of the blades at one end thereof for holding the blades in operative position; pintles pivotally securing the blades to the plates; a pair of levers pivotally secured near one end thereof to the plates; links interconnecting the adjacent ends of the levers and said blades whereby the blades are drawn toward and from each other as the levers are so operated; a holder to engage one end of the wood and a wedge shaped, relatively short piercing element slidably mounted between the said plates and operably joined to the levers for movement outwardly therefrom against the other end of the wood as the levers are operated to move together the said blades, said blades and the piercing element being in the same plane and positioned to simultaneously enter the wood from different angles at one end thereof.

4. A tool for splitting short lengths of wood comprising a pair of opposed blades, each wedge shaped in transverse cross section and having their cutting edges in proximal relation; a plate on each side of the blades at one end thereof for holding the blades in operative position; pintles pivotally securing the blades to the plates; a pair of levers pivotally secured near one end thereof to the plates; links interconnecting the adjacent ends of the levers and said blades whereby the blades are drawn toward and from each other as the levers are so operated; and a wedge shaped, relatively short piercing element slidably mounted between the said plates and operably joined to the levers for movement outwardly therefrom as the levers are operated to move together the said blades, said blades and the piercing element being in the same plane and positioned to simultaneously enter the wood from different angles at one end thereof, one of said plates having a holder projecting therefrom to engage the other end of the wood as the blades and piercing element are forced into the wood.

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