No. 864,122. PATENTED AUG. 20, 1907.

J. S. CLARE & P. JOHNSTON.

WOODWORKING TOOL.

APPLICATION FILED APR. 30, 1906.

Fig. 1.

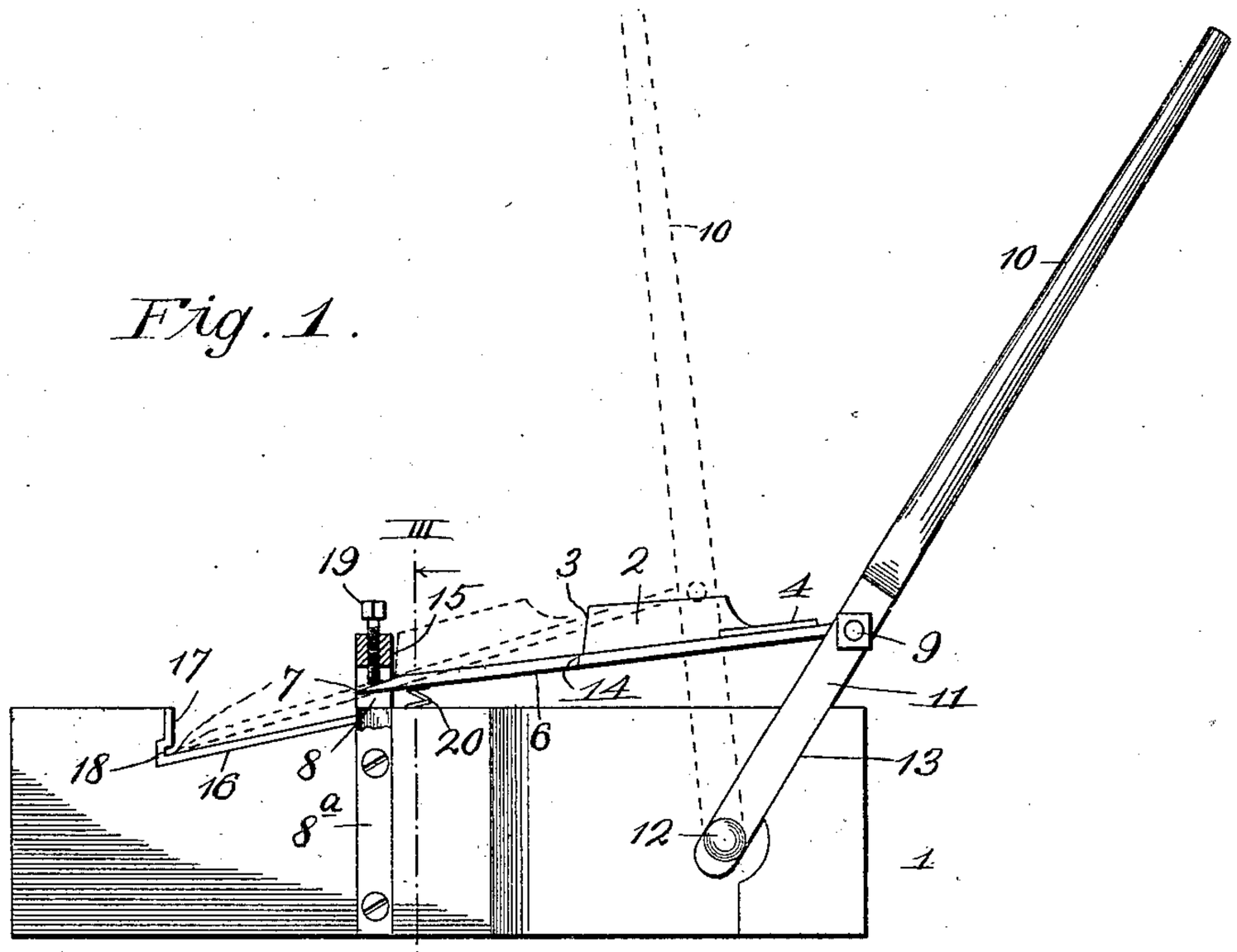
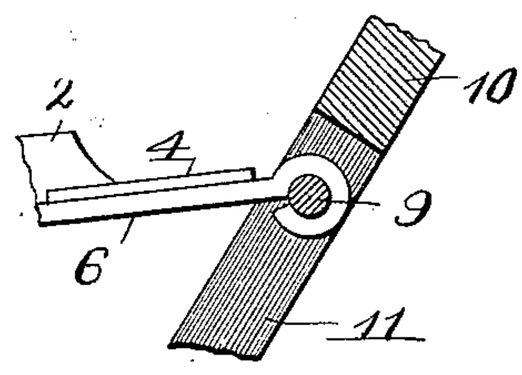


Fig. 3.

Fig. 4.



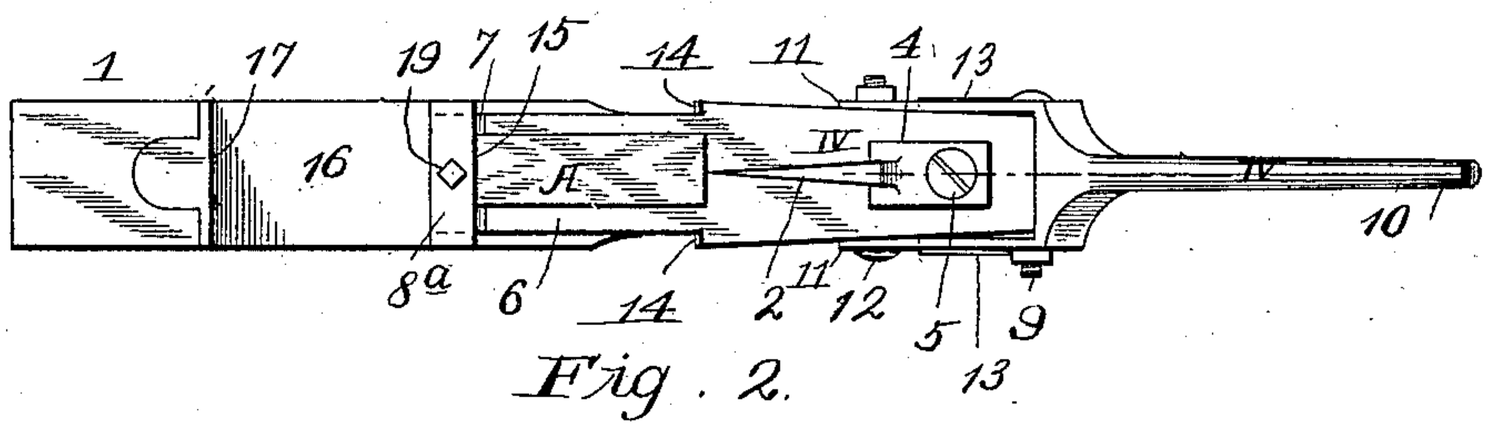


Fig. 2.

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UNITED STATES PATENT OFFICE.

JACOB S. CLARE AND PERRY JOHNSTON, OF LIBERTY, MISSOURI.

WOODWORKING-TOOL.

No. 864,122. Specification of Letters Patent. Patented Aug. 20, 1907.

Application filed April 30, 1906. Serial No. 314,498.

To all whom it may concern:

Be it known that we, JACOB S. CLARE and PERRY JOHNSTON, citizens of the United States, residing at Liberty, in the county of Clay and State of Missouri, have invented certain new and useful Improvements in Woodworking-Tools, of which the following is a specification.

Our invention relates to improvements in woodworking tools, and relates more particularly to that class for cutting wedges, spokes, etc.

The invention consists in the novel construction, combination and arrangement of parts hereinafter described, pointed out in the claims, and illustrated in the accompanying drawing, and in order that it may be fully understood reference will now be made to the accompanying drawing, in which:—

Figure 1 shows a side elevation of the device. Fig. 2 is a plan view of same. Fig. 3 is a transverse section taken on line III—III of Fig. 1. Fig. 4 is an enlarged broken section taken on line IV—IV of Fig. 2.

In carrying out the invention, we employ a base consisting of a rectangular block 1 which may be bolted or otherwise secured to a bench preparatory to using the tool.

2 designates a splitting blade for reducing the wood, of which the wedge or spoke is to be formed, to the desired thickness. Said blade tapers toward its inclined cutting edge 3 and is provided at its rear lower side with a tang 4 for the reception of a screw 5 whereby said blade is detachably secured to the shaping blade 6 which thus forms a support for it. By thus making the splitting blade detachable it may be readily removed when it is necessary to sharpen the same. Blade 6 has a chisel-edge 7 at its forward end and extends through an opening 8 in a guide 8^a, through which it slides. It is pivotally secured at its rear end by means of a bolt 9 to an oscillatory hand-lever 10, the lower bifurcated portion 11 of which straddles base 1 and is fulcrumed upon a bolt 12 extending transversely through said base. The backward stroke of lever 10 is limited by a pair of shoulders 13 arranged on opposite sides of base 1 in the path of the bifurcated portion 11 so that the latter will contact with said shoulders as shown in Fig. 1. The forward stroke of lever 10 is limited by a pair of forwardly facing shoulders 14 arranged upon the opposite sides of blade 6 slightly in advance of the cutting edge 3 so that said shoulders will contact with an abutment 15 and prevent the cutting edge 3 from striking said abutment and thus becoming dulled.

16 designates an inclined metallic shoe arranged in a recess in the upper portion of base 1 and provided with a vertical abutment 17 having a kerf 18 at its lower portion for the reception of edge 7 so formed with relation to abutment 15 that the edge 7 will not become dulled by contact with said abutment 17.

19 designates an adjusting-screw extending downwardly through the abutment 15 into opening 8 and adapted to engage the upper surface of blade 6, which latter is held upwardly in contact with the lower terminal of said screw by an expansion spring 20 bearing against the underside of the blade and arranged in a socket 21 in the upper portion of the base.

In practice lever 10 is drawn backward to the position shown by full lines, Fig. 1. A block of wood A is then placed upon blade 6 with its forward end resting against abutment 15 and its rear end arranged in the path of the splitting blade 2 so that when the lever is thrown forward to the position indicated by dotted lines said blade will be forced through the block and thus split the same. If the two pieces thus produced are to be employed for spokes no further work will be done thereon with our tool, but if they are to be formed into wedges they will be placed one at a time upon shoe 16 after lever 10 has been returned to its backward position. The piece resting upon the shoe with its forward end in contact with abutment 17 will then be tapered toward said forward end by the cutting edge 7 as the shaping blade is pushed forwardly by the next stroke of the hand lever. The taper of the wedge is regulated through the instrumentality of screw 19, for by screwing the same downwardly it will force the point of blade 6 downwardly and cause the latter to assume a greater angle with respect to shoe 16 and, consequently, give more taper to the wedge. By adjusting the screw upwardly blade 6 will be pushed upwardly by spring 20 so that it will assume a position almost parallel with the shoe, and, consequently, give the wedge less taper. If desired the wedge may also be tapered upon its opposite side by turning it over upon the shoe and again forcing blade 6 forward.

While the tool is especially adaptable for the purposes above described we, of course, do not limit ourselves to these uses as the tool may be employed to split or shape wood for other purposes.

From the above description it is apparent that we have produced a tool which is simple in construction, may be manufactured at low cost, and is well adapted for the purposes intended.

Having thus described our invention what we claim and desire to secure by Letters-Patent, is:—

1. In a splitting device, the combination with a base, having shoulders on its sides, and a guide carried by said base and having an abutment; of a lever having a bifurcated portion straddling said base and pivoted thereto adjacent its shoulders, a support pivoted at its rear end to said lever and sliding near its front end through said guide, a splitting knife mounted on the support and lateral shoulders on the support slightly in advance of said cutting edge, as and for the purpose set forth.

2. In a wedge cutter, the combination with a base having a shoe and an abutment, and a guide carried by the base; of a lever pivoted to the base, a shaping blade piv-

oted at its rear end to the lever and adapted to have its front end moved through the guide toward said abutment, and means for adjusting said front end vertically within the guide.

3. In a wedge cutter, the combination with a base having a shoe and an abutment, and a guide carried by the base; of a lever pivoted to the base, a shaping blade pivoted at its rear end to the lever and adapted to have its front end moved through the guide toward said abutment, means for normally raising said front end within the guide, and a screw opposed to said means, for the purpose set forth.

4. In a wedge cutter, the combination with a base having a shoe and an abutment, a guide carried by the base and having an opening, a spring in the base bearing upwardly in said opening, and a screw in the guide opposed to the pressure of the spring; of a shaping blade whose front end passes between said screw and spring, and means for projecting the blade toward the abutment and retracting it.

5. In a wedge cutter, the combination with a base having a shoe and an abutment, a guide carried by the base and having an opening, a spring in the base bearing upwardly in said opening, and a screw in the guide opposed to the pressure of the spring; of a shaping blade whose front end passes between said screw and spring, a lever pivoted to the base and to the rear end of the blade for reciprocating the latter, and shoulders on the base for limiting the rearward movement of the lever.

6. In a wedge cutter, the combination with a base having a shoe and an abutment, a guide carried by the base and having an opening, a spring in the base bearing upwardly in said opening, and a screw in the guide opposed to the pressure of the spring; of a shaping blade whose front end passes between said screw and spring, means for reciprocating the blade toward and from the abutment, and shoulders on the blade for engaging said guide to prevent contact of the cutting edge with the abutment.

7. In a wedge cutter, the combination with a base having a shoe and an abutment with a kerf at the angle between them, and a guide carried by the base; of a shaping blade whose front end slides through said guide, oscillatory means connected with its rear end for reciprocating the blade, and shoulders on the latter adapted to engage the guide for keeping the cutting edge of the blade out of actual contact with said kerf.

8. In a wood working tool, the combination with a base having a shoe and an abutment, and a guide carried by the base at that side of the shoe opposite its abutment and itself having an abutment; of a shaping blade sliding at its front end through said guide, a splitting blade carried by the shaping blade and adapted to move toward the abutment on the guide, and oscillatory means connected with the rear end of the shaping blade, for the purpose set forth.

9. In a wood working tool, the combination with a base having a shoe and an abutment, and a guide carried by the base at that side of the shoe opposite its abutment and itself having an abutment; of a shaping blade sliding at its front end through said guide, a splitting blade carried by the shaping blade and adapted to move toward the abutment on the guide, and a lever pivoted to the base and to the rear end of the shaping blade for giving the latter an oscillatory reciprocating movement at its rear end while its front end slides through said guide.

10. In a wood working tool, the combination with a base having a shoe and an abutment, and a guide carried by the base at that side of the shoe opposite its abutment and itself having an abutment; of a shaping blade sliding at its front end through said guide, a splitting blade carried by the shaping blade and adapted to move toward the abutment on the guide, a lever pivoted to the base and to the rear end of the shaping blade for giving the latter an oscillatory reciprocating movement at its rear end while its front end slides through said guide, means for limiting the rearward movement of the lever, and means for limiting the forward movement of both blades before they come into contact with their respective abutments.

In testimony whereof we affix our signatures, in the presence of two witnesses.

JACOB S. CLARE.
PERRY JOHNSTON.

Witnesses:
A. R. WINFREY,
R. F. MABERLY.