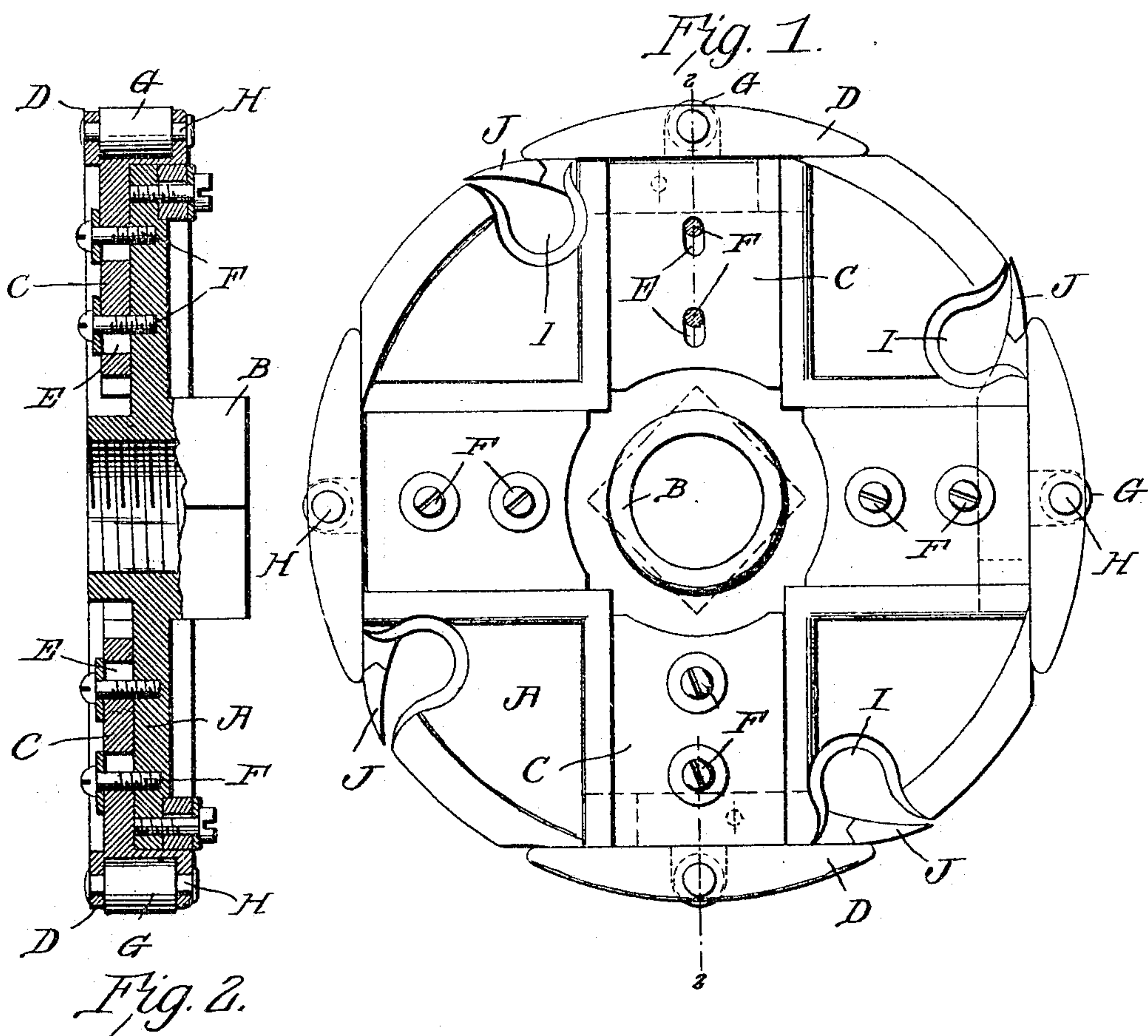


No. 801,748.

PATENTED OCT. 10, 1905.

H. SIMPSON.  
WOODWORKING TOOL.  
APPLICATION FILED AUG. 3, 1905.



Witnesses  
M. R. Norvick  
Fannie H. Huse

Inventor:  
Henry Simpson,  
By *[Signature]*  
Dodge and Sons,  
Attorneys.



# UNITED STATES PATENT OFFICE.

HENRY SIMPSON, OF ELMIRA, NEW YORK.

## WOODWORKING-TOOL.

No. 801,748.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed August 3, 1905. Serial No. 272,570.

*To all whom it may concern:*

Be it known that I, HENRY SIMPSON, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Woodworking-Tools, of which the following is a specification.

My present invention relates to an improved woodworking-tool, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein—

Figure 1 is a side elevation of the tool; Fig. 2, a transverse sectional view on the line 2 2 of Fig. 1; and Fig. 3, a perspective view, partly broken away, of one of the members.

The object of the invention is to provide a combined reamer or cutter and work-support, the tool being especially useful in the manufacture of wood pipe and like hollow wooden articles.

Wood pipes when made of staves, as is now the usual practice, are more or less rough upon their inner faces when the staves are first assembled, and this unevenness must be removed.

The tool herein shown and described is designed to ream out the pipe, thereby making its bore even and true, and likewise to act as a work-support for the pipe while it is undergoing further treatment—as, for instance, when the end is being turned down to form the tenon or socket.

Referring to the drawings, A denotes the main body of the tool, having a threaded hub B. The body is formed upon one side with a series of radially-disposed ways in which are seated the stems C of the radially-adjustable shoes D. Stems C, as will be noted upon reference to Fig. 3, are provided with elongated openings or slots E, through which are passed screws F, the screws passing into the body A and serving to secure the shoes in their adjusted position. The outer face of each shoe is convex, the radius of its curve by preference being substantially the same as that of the outer face of the body portion intermediate the shoes. As will be noted upon reference to Figs. 1 and 3, the under face of the shoe is flat, so that when the shoe, or “radially-movable member,” as it may be termed, is moved inwardly to the full extent it rests upon a corresponding flat face formed upon the periphery of the body.

Each adjustable shoe or member is provided with a roller G, mounted in a recess formed

in the body of the shoe, the recess cutting into or through the convex face of the shoe, and thereby permitting the roller to extend slightly beyond the periphery of the shoe. The recess is of such size that the roller may turn freely upon its supporting pin or axle H.

The body is provided with a series of transverse openings or recesses I at its periphery, there being one of such recesses adjacent to each of the radially-disposed ways in which the adjustable shoes are mounted. A series of cutter blades or knives J is adjustably mounted upon the body, preferably upon the side opposite to that upon which the ways are formed, the ends of the knives overlying the recesses I. When the shoes are retracted and the knives protruded, the tool may be used as a reamer or cutter-head to bore out the pipe and produce an even surface therein. When the knives are retracted and the shoes protruded, the tool may be used as a work-support, the rollers bearing against the inner face of the pipe. The pipe will be firmly held up to any tool which may be acting thereon, the curvature and long bearing-faces of the shoes preventing any wobbling which the rollers might not possibly prevent.

Having thus described my invention, what I claim is—

1. A tool comprising a body portion; a series of radially-adjustable shoes arranged about its periphery, each shoe being provided with a roller; and a series of cutters also carried by the body portion.

2. A tool comprising a body portion; a series of radially-adjustable shoes carried thereby; a roller mounted in each of said shoes, the periphery of the roller extending slightly beyond the periphery of the shoe; and a series of adjustable cutters also carried by the body portion.

3. A tool comprising a body portion; a series of rollers arranged around its periphery; and a series of knives carried by the body, the knives and rollers being relatively adjustable, whereby the tool may be used as a work-support or cutter-head, substantially as described.

4. A tool comprising a body portion; a series of shoes radially adjustable thereon, the outer face of each shoe being curved; a roller carried by each shoe, the periphery of the roller extending beyond the curved face of the shoe; and a series of adjustable knives carried by the body portion.

5. A tool comprising a body portion provided with a series of recesses about its pe-

riphery; a series of knives carried thereby, the  
outer ends of the knives overlying the re-  
cesses; a series of radially-adjustable shoes  
mounted upon the body, the outer face of each  
5 shoe being curved; and a roller carried by each  
shoe, the periphery of the roller extending be-  
yond the curved face of the shoe.

In testimony whereof I have signed my name  
to this specification in the presence of two sub-  
scribing witnesses.

HENRY SIMPSON.

Witnesses:

HARRY E. BEARDSLEY,  
S. M. JONES.