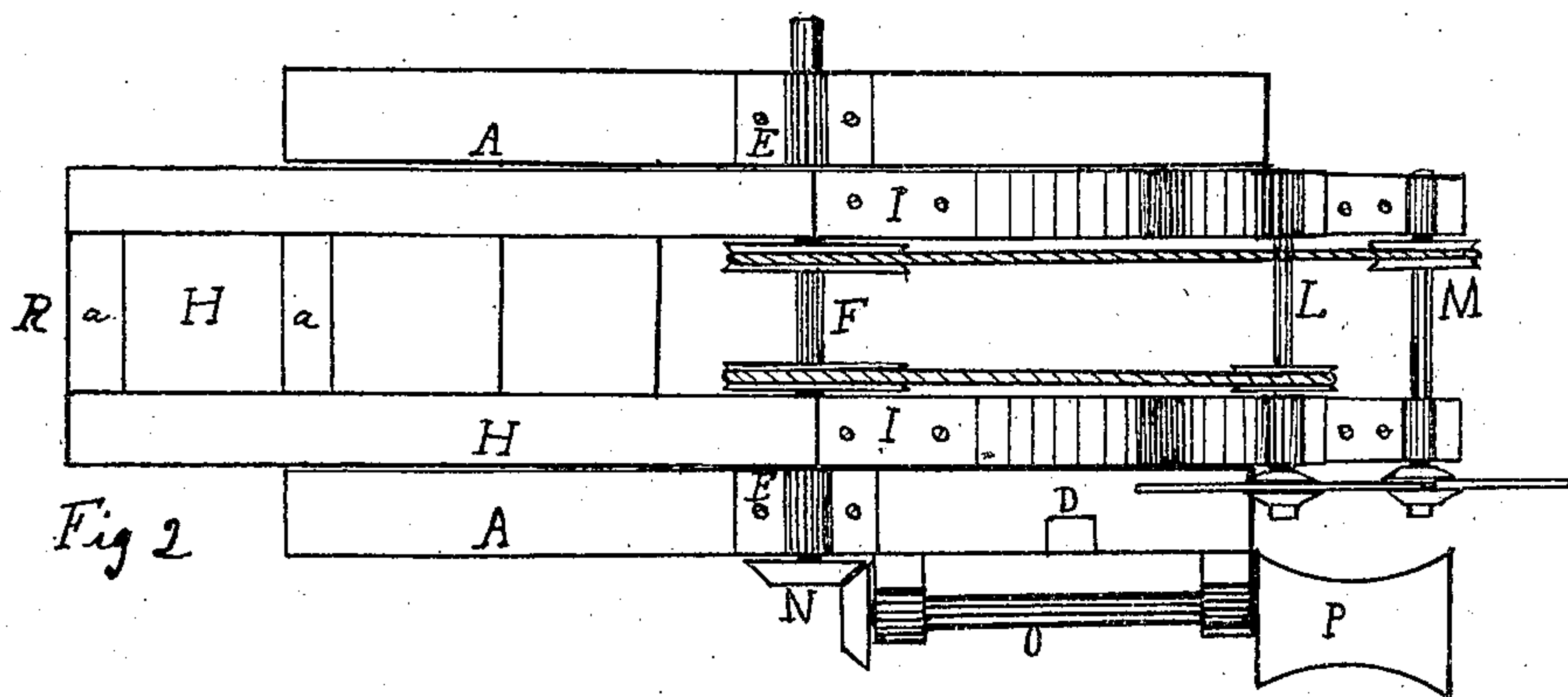
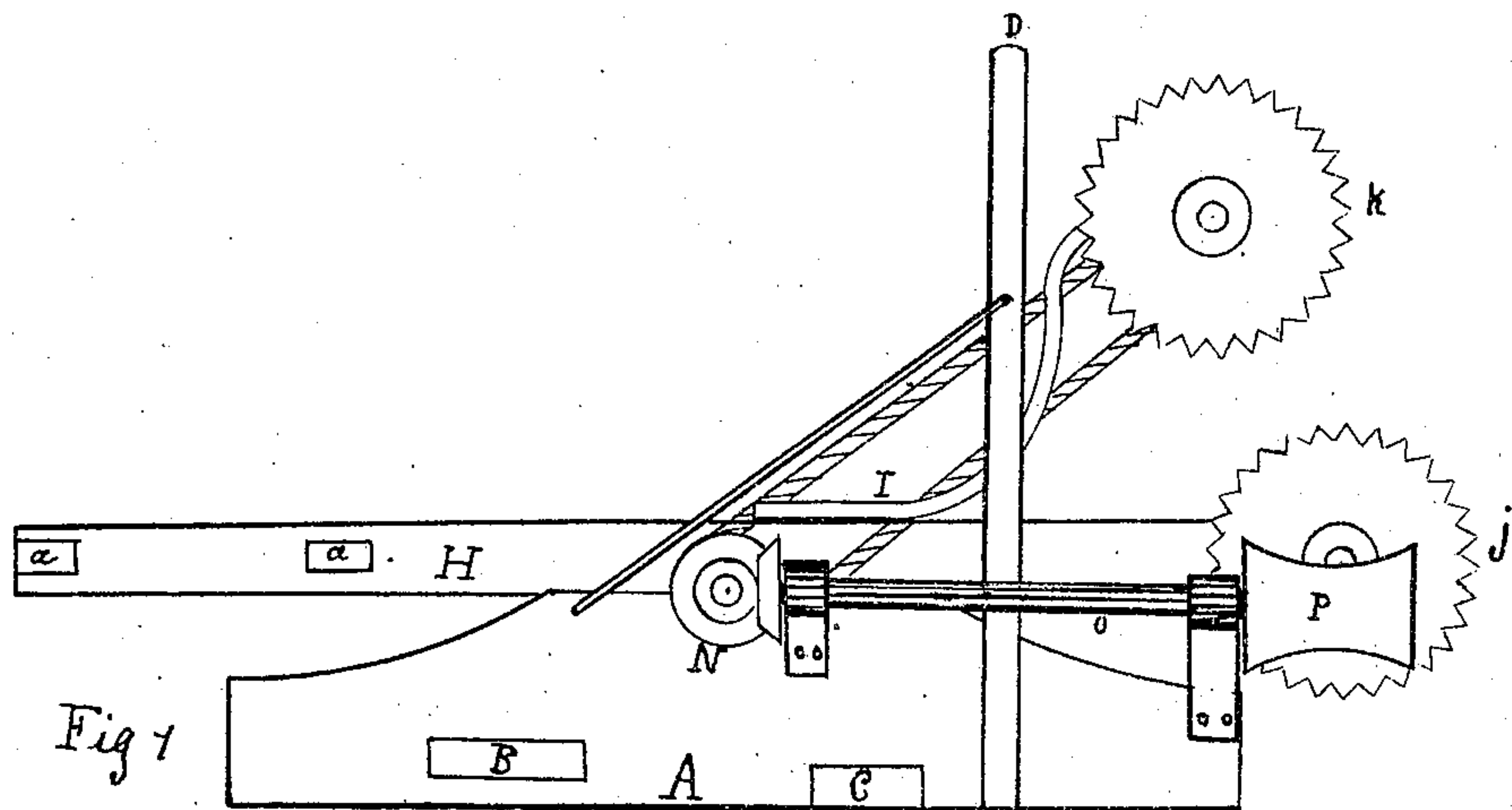


Ira Shepard's Improved Wood Saw.

116877

PATENTED JUL 11 1871



Witnesses
 Chauncey T. Lee
 Orson H. Buttrick

Inventor
 Ira Shepard

UNITED STATES PATENT OFFICE.

IRA SHEPARD, OF DOWAGIAC, MICHIGAN.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 116,877, dated July 11, 1871.

To all whom it may concern:

Be it known that I, IRA SHEPARD, of Dowagiac, in the county of Cass and State of Michigan, have invented certain Improvements in Wood-Sawing Machines, of which the following is a specification:

The first part of my invention relates to the arrangement of two circular saws in an oscillating frame for the purpose of crosscutting wood for fire and other purposes. The second part of my invention relates to the arrangement of beveled gear with feed-roller for the purpose of drawing the log to the saw, the object being to obtain greater efficiency and dispatch in cross-cut sawing than has hitherto been accomplished.

To enable others skilled in the art to which my invention relates to make and use it, I will proceed to describe it, having reference to the accompanying drawing making a part of this specification, and to the figures and letters marked thereon, in which—

Figure 1 is a side elevation of a machine embodying my invention. Figure 2 is a top view of the same.

A represents the bed-pieces of the frame. These bed-pieces rest upon the ground and are provided with the cross-ties B C and vertical post D. Boxes E E are placed mid-length of the bed-pieces. These boxes support the shaft F and are provided with sleeves G G. These sleeves project inward and form the pivots on which the oscillating frame H works. This frame is placed in a horizontal position and provided with cross-ties *a a*, and suspended at mid-length so as to oscillate between the bed-pieces A A. The circular saw J is attached in the usual manner to one end of said frame; the other end acts as a counter-balance. Curved arms I I are attached to this oscillating frame. These curved arms support the circular saw *k* at a point nearly over

the saw *j*, sufficiently high to admit the log to be drawn between the saws. These saws are driven from pulleys on the shaft F by means of belts and pulleys on the shafts L and M. A bevel-wheel, N, on the end of the shaft F, engages with a similar wheel on the shaft O. This shaft has suitable supports attached to the bed-piece A, and is provided with the roller P. On this roller the log to be sawed is placed. The shaft P should be so arranged as to be easily thrown in and out of gear with the shaft F.

To operate this machine motion is given to the shaft F by any suitable power. The attendant presses down on the oscillating frame at R, causing the saw *j* to rise and cut the under side of the log. When this is done the saw *k* is lowered upon upper side of the log, thus finishing the cut. The oscillating frame is then raised to the position as at first, when the bevel-wheels are thrown into gear and the log drawn up for another cut. A temporary table should be placed over the lower saw-shaft when sawing large logs to support the piece cut off, but when small sticks are sawed the under side of the lower saw should be used, in which case the end cut off would fall upon the ground and the table might be dispensed with. It will be seen that, with the arrangement above described, circular saws may be used for cutting large logs that could not be conveniently cut with one saw only, and with greater speed and less complication of parts than other saws for the same purpose.

Having thus described my invention in the most exact terms that I can give, what I claim is—

The arrangement of the oscillating frame H with the curved arms I I and saws *j* and *k*, as and for the purposes set forth.

Witnesses:

IRA SHEPARD.

CHAUNCEY T. LEE,
ORSON H. BUTICK.