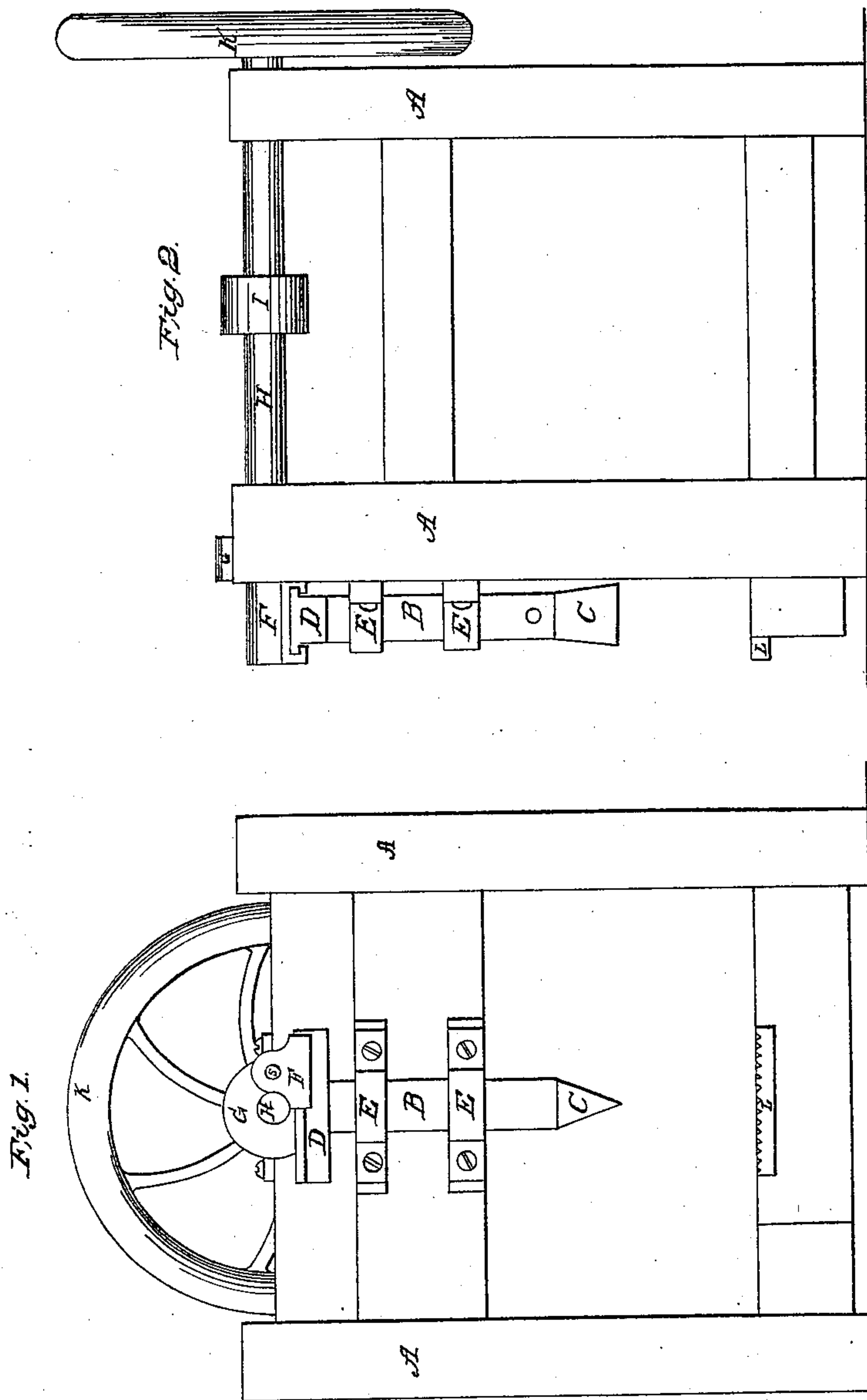


*Lore & Thornley,
Splitting Wood,*

No 59,423.

Patented Nov. 6, 1866.



Witnesses:

O. F. Mayhew.

Jacob P. Dunn

Inventors:

*Orion Thornley
William Lore*

UNITED STATES PATENT OFFICE.

WILLIAM LOVE AND ORION THORNLEY, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN DEVICES FOR OPERATING WOOD-SPLITTING AND OTHER MACHINES.

Specification forming part of Letters Patent No. **59,423**, dated November 6, 1866.

To all whom it may concern:

Be it known that we, WILLIAM LOVE and ORION THORNLEY, both of Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Wood-Splitting Machines; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of the same, in which—

Figure 1 is a front elevation of the machine. Fig. 2 is a side elevation of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to operating the mandrel to which the ax is attached in wood-splitting machines by means of a peculiar device for converting rotary into reciprocating motion, which is particularly adapted to splitting wood and similar purposes; and to this end consists in constructing the mandrel with or attaching to its upper end a T or cross head with flanges on the upper edges, on which a sliding block hung on the wrist or crank-pin reciprocates horizontally as the crank revolves, causing the mandrel to reciprocate vertically.

To enable others skilled in the art to make and use our invention, we will proceed to describe it.

A is a substantial frame-work, to which all the other parts are attached. B is the mandrel, to which the ax C is attached at the bottom. The mandrel is constructed with or has a T or cross head, D, attached at the top, with flanges on the upper edges, as shown, and moves vertically in and is attached to the frame A by means of the guides E E. F is a sliding block, formed, as shown, with flanged jaws

that clasp the T or cross head D, and on which it reciprocates horizontally. The block F is hung upon the wrist or crank pin S of the crank-wheel G. H is the shaft, and I the driving-pulley thereon; K, fly-wheel. The crank-wheel G is keyed on the end of shaft H, the rotation of which causes the mandrel to reciprocate vertically in the guides E E, being carried by the flanged jaws of the sliding block F.

This arrangement of the T or cross head D and sliding block F enables us to construct the machine in a very compact, substantial, and simple manner. The mandrel is designed to be heavy enough, generally, to split the wood by its own weight. The ax C is attached to the lower end of the mandrel by a shank that fits into a socket in the end of the mandrel, where it is secured by a pin or bolt, so that it may be readily removed to sharpen or repair.

The wood is sawed into desired lengths and placed by the operator on the table L, which is of iron, roughened to prevent the wood slipping. The blocks are placed so that the ax descends near one side, being moved over, as they are split, toward the other side. They are then turned and split at right angles.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The arrangement of the T or cross head D and sliding block F, in combination with the crank G S and mandrel B, substantially as set forth.

WILLIAM LOVE.
ORION THORNLEY.

Witnesses:

O. F. MAYHEW,
R. D. LOGAN.