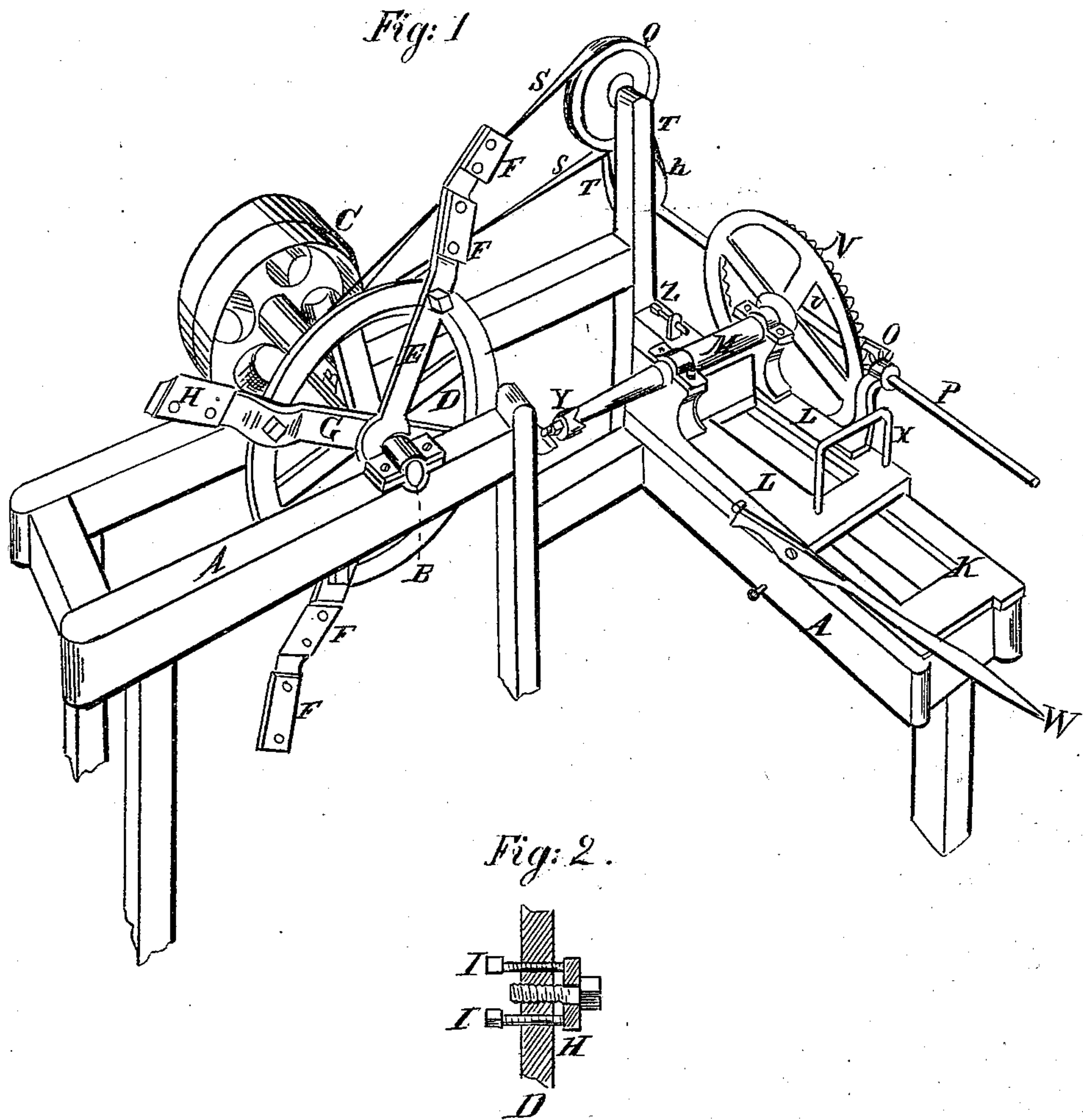


A. Goodyear,
Wheelwright Mast.
No. 94,201. *Patented Aug 31, 1869.*



Attest
H. S. Ebert
Charles A. W. Rice

Inventor
A. Goodyear
By his Attorney
Thos. S. Sprague
per Alex. A. Klamet

United States Patent Office.

ANDREW GOODYEAR, OF ALBION, MICHIGAN.

Letters Patent No. 94,201, dated August 31, 1869.

IMPROVEMENT IN MACHINE FOR SHAPING HUBS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, ANDREW GOODYEAR, of Albion, in the county of Calhoun, and State of Michigan, have invented a new and useful Improvement in Machinery for Shaping Hubs; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view of my invention, and

Figure 2 is a vertical sectional view of the cutter-wheel, showing the method of attaching the knives, &c.

Like letters indicate like parts in each figure.

The object of this invention is to construct a machine, by means of which blocks or bolts of wood, from which hubs are to be turned, may be rough-hewn or shaped ready to be placed in the finishing-lathe.

To accomplish this result, I construct an L-shaped frame, A, shown in fig. 1 of the accompanying drawings.

Upon the longer part of this frame, running in proper boxes, is a transverse driving-shaft, B, driven by a belt on the pulley C.

Upon the shaft B is rigidly secured a wheel, D.

Sleeved upon the shaft, and bolted to the rim of the wheel D, is an arm, E, the ends of which, projecting beyond the rim of the wheel, are bent to an obtuse angle, in which are placed the knives F.

G is a similar arm, except that its outer end is bent further back, and the single knife H, at the end, cuts in the plane of motion of the wheel.

This arm is adjustable, in relation to the wheel, by means of the set-screws I, fig. 2, in the rim of the wheel.

K is a guide, on the transverse part of the frame, upon which moves the sliding frame L, carrying the mandrel M, to which is secured the bevel-gear N, rotated by the pinion O, sleeved on the shaft P, which, in turn, is rotated by the shaft B, through the pulleys Q and R, and belts S and T.

The shaft P receives a continuous rotary motion, and is provided with a feather, U, for a portion of its length, engaging with a key-way in the pinion O, rotating the same when it is pressed forward, causing the mandrel to rotate slowly, and, when drawn back, to remain stationary.

The taper end of the mandrel M, which may be made of such sizes as will fit the holes in the various sizes of hubs, has a squared shank near its end, upon which slides a spur, V, which is driven into the bored block on the mandrel, and secures it in position.

A lever, W, and handle, X, are attached to the sliding frame L, for conveniently moving it forward and back.

As the impact of the knives upon the block might spring or break the mandrel, a support, Y, is attached to the main frame in such a manner as to support the extreme end of the mandrel, when the same is moved forward, and the knives are operating on the block placed thereon.

A set-screw, Z, on the frame, at the rear of the sliding frame L, regulates its travel toward the cutters, and determines the size of the hub.

Having thus described my invention, I will now explain its operation.

The sliding frame L being drawn away from the cutters, the spur V is removed from the mandrel, and a block of wood, previously bored, is placed thereon. The spur is then replaced on the mandrel, and driven into the wood. By means of the lever W, the sliding frame is then moved forward, when the key-way in the pinion O will engage with the feather on the shaft P, and thus communicate a slow rotary motion to the mandrel. As it is fed up, the cutting-knives F and H, revolving with great speed, cut and trim off the rough and irregular edges of the block, which, as it receives a rotary motion with the mandrel, is formed into nearly the shape of the hub, the knife H forming the bilge, and the knives F the conical portion of the hub-block. The stop Z prevents the sliding frame from being fed up too far, and prevents too much cutting away of the material. The hub being shaped, the sliding frame is withdrawn by means of the handle X, and the hub removed, ready to be placed in a proper lathe for finishing.

I am aware of the existence of the patent of Miles and Lane, March 8, 1859, for a similar machine; and I do not, therefore, lay claim, broadly, to the general features of my machine; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The machine described, consisting essentially of the wheel D, with arms E G, and knives F H, the carriage L, and mandrel M, with spur V, support Y, gearing N O, and stop Z, the whole being combined, arranged, and operated in the manner and for the purpose set forth.

ANDREW GOODYEAR.

Witnesses:

H. F. EBERTS,
L. C. HYDE.