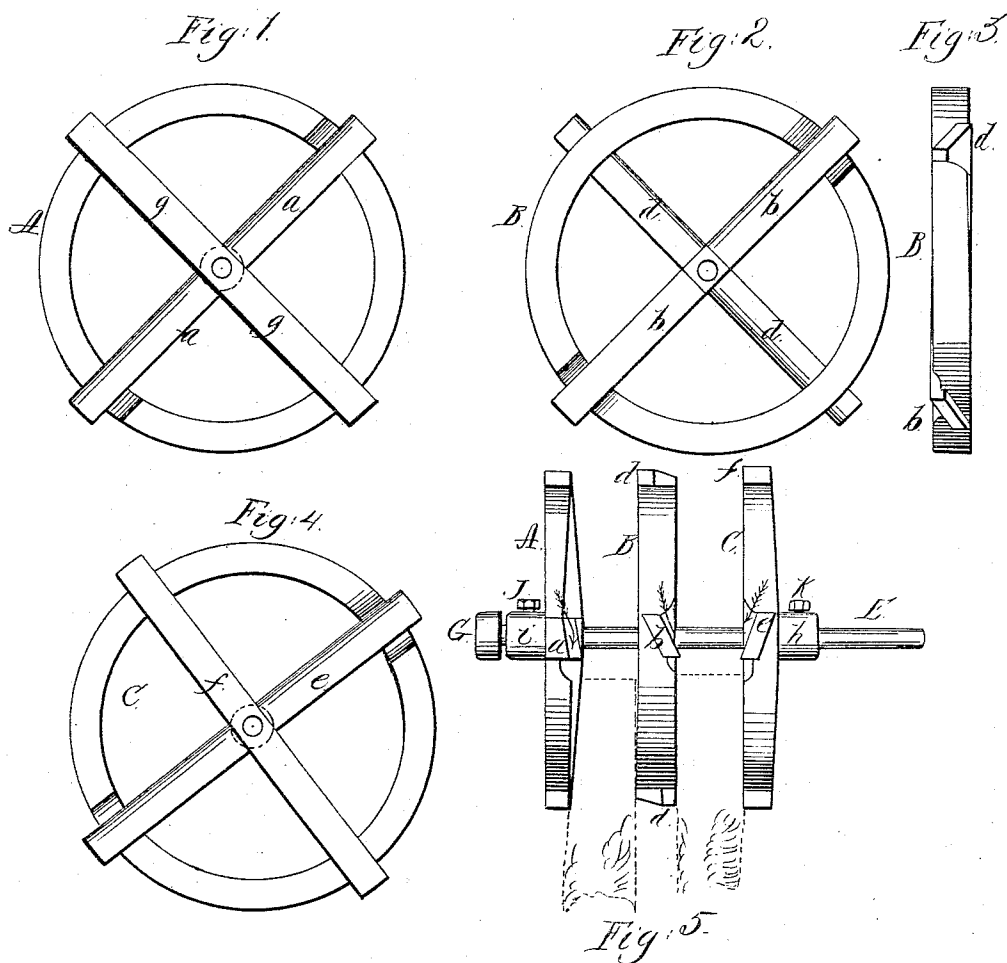


C. D. Brown,
Making Fence Pickets, &c.
N^o 83, 918. Patented Nov. 10, 1868.



Witnesses:
Amos Morgan
Philip C. Dietrich.

Inventor:
C. D. Brown
per Munn & Co.
(Attorneys)

United States Patent Office.

C. D. BROWN, OF BAINBRIDGE, NEW YORK.

Letters Patent No. 83,918, dated November 10, 1868.

IMPROVEMENT IN MACHINES FOR DRESSING HOP-POLES.

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

To all whom it may concern:

Be it known that I, C. D. BROWN, of Bainbridge, in the county of Chenango, and State of New York, have invented a new and useful Improvement in Machines for Dressing Hop-Poles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side detail view of one of the outside cutter-wheels.

Figures 2 and 3 are, respectively, a side and edge view of the middle cutter-wheels.

Figure 4 is a side view of the remaining outside cutter-wheel.

Figure 5 is a front view of the three cutter-wheels, when arranged on a driving-shaft for operation.

Similar letters of reference indicate like parts.

The object of this invention is to provide a simple and effective means for sharpening and dressing hop-poles.

It consists in the arrangement of three cutter-wheels on a shaft, in such a manner that the poles to be sharpened or dressed may be passed between the said wheels and be cut by cutters or knives affixed on the radial arms of the wheels, which latter are formed with reference to bearing the said knives, and presenting their cutting-edges to the wood in the most effective manner.

In the drawings, the form of the wheels is shown, as also their position and arrangement when operating together as a machine.

Each wheel is composed of a rim and four radial arms, but, aside from these general features, differ essentially in construction.

The first wheel, A, is the tapering or sharpening-cutter wheel, having two ordinary arms, *g*, and two cutter-bearing arms, *a*.

The cutter-bearing arms are bevelled to afford a proper surface for bearing the cutters, and presenting the edges of the same with the proper inclination to the pole to be dressed.

Each cutter may be in one continuous piece, or may be in sectional parts, and are to be bolted, or otherwise affixed, on the bevelled arms of the wheels, in a radial arrangement corresponding to the said arms.

The middle wheel B has four cutter-bearing arms, *b d*, the bevel of each of which being in an opposite direction from the adjacent two.

This arrangement enables two cutters to be affixed on each side of the wheel B, so that two shall operate in conjunction with the cutters on the approximate face of the adjacent outer wheels.

The third and last wheel, C, has two bevelled cutter-bearing arms, *e*, and two plain arms, *f*, as shown.

When brought together on the same shaft, E, as shown at fig. 5, the relative arrangement of the bevelled arms will be such, that while the three wheels are revolving in the same direction, a hop-pole, or other similar piece of wood, may be dressed, by passing it along on the table of the machine, and between the wheels B and C, for the cutters on the arms *b* and *e* will present their edges to the wood, to dress each side of it, as the wood is passed along between the wheels.

The taper is given to the hop-pole by the cutters on the wheel A, for the arms of this wheel are tapered from the hub outward, as shown, so as to hold the cutter in a corresponding position by means of which the taper is given to one side of the end of the hop-pole, as shown. The other side is dressed by the straight cutters on the wheel B.

This action of the cutters leaves the hop-pole tapered on one side of the end, which form is adapted for fitting in the staples, for it must be borne in mind that the hop-poles for which this machine is designed are affixed to a short post or stump by means of staples, the tapered part being next the side of the post which inclines the poles to the post in a manner resembling the branches of a tree.

In operation, the poles are first passed singly between the wheels B and C to receive the proper smoothing or dressing on two sides. They are then turned over and again passed between the same wheels to be dressed off on the remaining sides. The ends are then presented to the cutters of the wheels A and B, as shown, to receive the proper taper, as before described.

The wheels are driven by a belt on the pulley G of the shaft, which latter may have any suitable bearings in a frame or table, as in any other analogous machine, and nothing new being claimed in this respect, I have omitted showing any frame or table, as its relation to the wheels and shaft will be readily apprehended by those skilled in mechanism.

The outer wheels are formed with sleeve-hubs, *h* and *i*, as shown, and set-screws, *j k*, by means of which the said wheels may be adjusted at any suitable distance from the middle wheel, to dress poles of different sizes. The middle wheel is usually keyed on the shaft.

The wheels are, in practice, preferably of cast-iron, and the cutters of steel, and of any suitable form.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The construction of the three wheels A, B, and C, and their combination with and arrangement on the shaft E, substantially as herein shown and described.

C. D. BROWN.

Witnesses:

EPHRAIM BIXBY,
HARRY JONES.