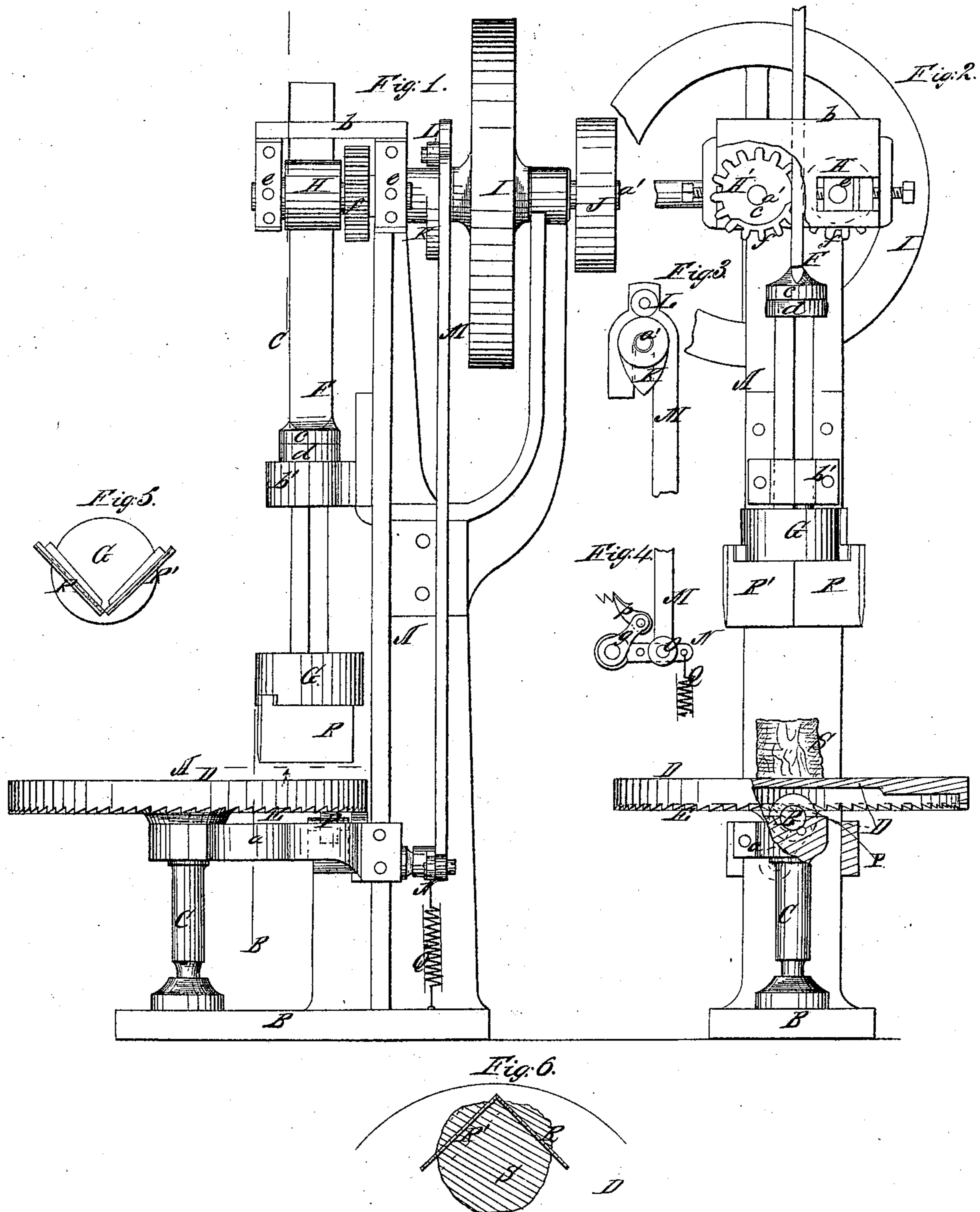


F. Noette,
Splitting Wood.

N^o 19,867.

Patented Apr. 6, 1858.



UNITED STATES PATENT OFFICE.

F. NOETTE, OF BROOKLYN, NEW YORK.

MACHINE FOR SPLITTING WOOD.

Specification of Letters Patent No. 19,867, dated April 6, 1858.

To all whom it may concern:

Be it known that I, FRANZ NOETTE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Machine for Splitting Kindling-Wood; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side elevation of my improvement. Fig. 2, is a front view of ditto, a portion being bisected or broken away to show the working parts. Figs. 3 and 4, are detached views of the feed movement. Figs. 5 and 6, are detached views of the cutters.

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

This invention consists in the employment or use of an intermittingly rotating table and plunger provided with cutters arranged in a peculiar way the above parts being combined and arranged to operate as hereinafter shown and described, whereby wood that is sawed into proper lengths may be split into kindling wood with the greatest facility.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents an upright which is attached to a proper base B, and C, is a vertical shaft the lower end of which is stepped in the base B, the upper end having its bearing in a horizontal arm *a*, attached to the upright A. To the upper end of the shaft C, a circular table or bed D, is attached, said table or bed having a rack E, formed on its under side at its periphery.

F, is a vertical shaft which is fitted and allowed to work freely up and down in guides *b*, *b'*, attached to the upright A. To the lower end of the shaft F, a weight G, is attached, and a shoulder *c*, is formed on the shaft F, said shoulder being above the lower guide *b'*. The shaft F, has an elastic substance *d*, to serve as a buffer placed on it just below the shoulder *c*, and above the guide *b'*, india rubber or a similar material would answer.

H, H', represents two cams or eccentrics, the journals of which are fitted in proper bearings *e*, at the upper part of the upright A. The inner ends of these eccentrics have gear wheels *f*, at their inner ends which mesh into each other and the shaft *a'*, of

the eccentric H', extends some distance beyond the back side of the upright A, to receive a fly wheel I, and a driving pulley J.

The upper part of the shaft, F, passes between the eccentrics H, H', and the eccentrics are at such a distance apart, that when their prominent parts are in contact with the shaft they will clamp or grip the same, but their depressed parts do not come in contact with the shaft. The form of the cams or eccentrics is clearly shown in Fig. 2.

On the shaft of the eccentric H', a tappet K, is placed. This tappet as its shaft rotates works against a friction roller L, which is placed on the upper end of a vertical rod M, the upper end of the rod being bent in the form of a crook and encompassing the shaft of the eccentric H', the crook forming a guide for the rod, see Fig. 3. The lower end of the rod M, is attached to arm N, which is attached to the outer end of a shaft O, which passes through the upright A, and has an arm *g*, attached to it. The outer end of the arm *g*, has a pawl *h* attached see Fig. 4.

The inner part of the table or bed D, rests on a friction roller P, which has its axis fitted on the arm *a*. The outer end of the arm N, is attached to spiral spring Q.

R, R', are two cutters the upper ends of which are fitted in the weight G, in V-form as shown clearly in Figs. 5 and 6, Fig. 5, being an inverted plan of the weight G. These cutters are made of steel and may be secured in the weight G, in any proper way, the cutters being sufficiently long so as to project far enough below the weight to pass the requisite distance into the wood to be split.

The operation is as follows: Motion is given the shaft *a'*, in any proper manner and the sticks of wood to be split are placed uprightly on the table or bed D, near its periphery. The table or bed D, is rotated intermittingly in consequence of the tappet K, actuating the rod M, which in turn operates the arm N, and consequently the arm and pawl *g*, *p*, the latter catching into the rack E. The downward movement is given the rod by means of the spring Q, in certain cases however the rod M, may be sufficiently heavy to fall by its gravity and no spring would then be required. The shaft F, is raised by the prominent parts of the eccentrics H, H', and falls by its own gravity solely when the prominent portions

of the eccentrics leave the shaft, the buffer
d, striking the guide b'. The sticks S, as
they pass underneath the cutters R, R', are
split, by the descent of shaft F, and cutters,
5 into small pieces of suitable size, one cutter
R, splitting the stick into slabs, and the
other cutter R', cutting the stick at right
angles with cutter R. These cutters do not
both act at the same time on the sticks but
10 successively, the cutter R', acting last upon
the wood, and re-splitting the slabs cut by
cutter R, see Fig. 6, in which the black
diagonal lines show the cuts of cutter R,
and the red dotted lines the cuts of cutter
15 R', the red arrow showing the direction in
which the table or bed moves. The feed of
the table or bed D, may be varied as occa-
sion may require by attaching the lower
end of the rod M, nearer to or farther from
20 the outer end of arm N.

The cutters R, R', may be readily sharp-
ened when dull, as they are straight plates
of steel, and may be easily attached to and
detached from the weight G, and as the
two cutters act successively on the sticks 25
S, the sticks are cut with but a moderate
sized weight G, and the operation of the
machine greatly facilitated.

Having thus described my invention what
I claim as new and desire to secure by Let- 30
ters Patent, is,

The intermittingly rotating table or bed
D, in combination with the vertical recipro-
cating cutter shaft F, arranged to operate
substantially as and for the purpose set 35
forth.

F. NOETTE.

Witnesses:

WM. TUSCH,
WM. HAUFF.