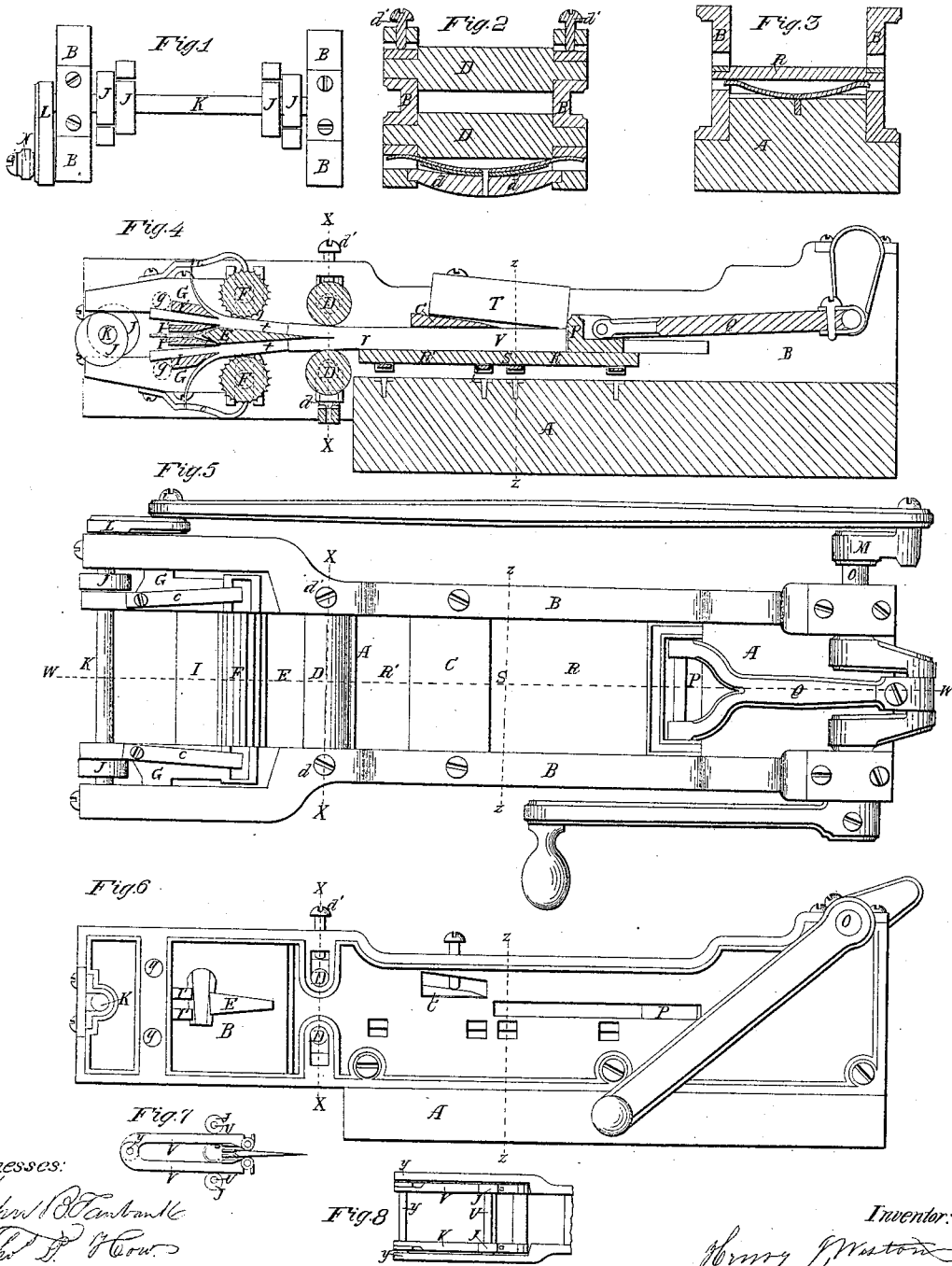


*H. J. Weston,
Cutting Shingles,*

No. 13,555,

Patented Sep. 11, 1855.



*Witnesses:
John R. Combs
Sh. B. Cow.*

*Inventor:
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UNITED STATES PATENT OFFICE.

HENRY J. WESTON, OF BUFFALO, NEW YORK.

CONSTRUCTION OF BEDS FOR SHINGLE-MACHINES.

Specification of Letters Patent No. 13,555, dated September 11, 1855.

To all whom it may concern:

Be it known that I, HENRY J. WESTON, of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Machines for Making Shingles and for other Purposes; and I do hereby declare that the following description, illustrated by the accompanying drawings and references, making part of this specification, is sufficiently clear and comprehensive to enable others of competent skill to make and use my invention, in which—

Figure 1, is a front end elevation—with the back part of the machine removed. Fig. 2, is a transverse sectional elevation through the line *x, x*, of Figs. 4, 5, and 6, showing the position of the rollers and the spring under the yielding gage roller certain portions being removed as in Fig. 1. Fig. 3, is a transverse sectional elevation through the line *z, z*, Figs. 4, 5, and 6, showing the spring under the yielding bed plate R. Fig. 4, is a longitudinal section through the line W, W, of Fig. 5. Fig. 5 is a ground plan. Fig. 6 is a side elevation. Fig. 7, is a sectional elevation of the dividing knife with the shaving knives and a more desirable application of the eccentrics J, J, and Fig. 8 is a ground plan of Fig. 7.

The nature of my invention consists in making the bed which supports the timber as it is fed up to the riving knife, in two yielding parts so arranged that when the follower which forces the timber forward into the machine has completed its forward motion, it will have carried the timber beyond the first part of the yielding bed so as to allow that part of the bed to rise to its proper position to gage the thickness of the next shingles to be split off, while at the same time the other part of the bed may be in operation to hold the timber up to the riving knife.

B, B, is the cast iron frame of the machine supported by and bolted to the wooden bed A, A.

C is the riving knife.

D, D, are gage rollers, the upper one being stationary during the operation of the machine, but adjustable by the set screws *d'*, and the lower one being yielding and resting on the spring *d* as shown in drawing Fig. 2. These gage rollers serve to guide the piece of timber separated from the original block to the dividing knife E.

F, F, are fluted rollers hung in the levers G, G, and made yielding by the springs *c, c*, which springs are attached to the levers. These levers work on journals *g, g*, in the frame B.

I, I, are shaving knives attached by their ends to the levers G, G, and I', I', are stationary shaving knives attached by their ends to the frame B as represented. The ends of these levers G, G, opposite the knives I, I, rest on eccentrics J, J, which eccentrics are attached to the rock shaft K on which rock shaft the arm L is attached outside of the frame of the machine.

i as a bolt by which the connecting rod N is attached to the arm L, which arm is slotted to permit an adjustment of its length by the bolt *i*. This rod N is connected by the crank M to the driving shaft O, which also communicates motion to the driver P, by means of the connection Q.

A bolt or block T, of wood being placed on the yielding bed plate R, R', as shown at Figs. 3 and 4 which bed plate is divided at S, to allow the part R, (when the part R' is forced below its natural position by the casually increased thickness of the piece separated) to rise to its proper position to form a gage for the next succeeding mold or piece which is to be split from the block T, by the next succeeding forward motion of the driver. Its operation is as follows: The riving knife C separates from the block T, a sufficient amount of timber *t*, for two or more shingles in thickness (the block being forced against the knife C, by the driver). The block T being replaced upon the bed R, another mold *v*, is separated which forces the previous mold *t* onward between the gage rollers D, D, against the dividing knife E, and between the fluted rollers F, F, and the dividing knife E respectively which keeps the two parts of the mold *t* in contact with the dividing knife and shaving knives I', I'. Another mold *v* being taken from the block T as described and forced on by the driver P, against the preceding mold, drives the two parts of the mold *t*, between the stationary knives I', I', and the vibrating knives I, I.

The connection between the eccentrics J J, rock shaft K, arm L, connecting rod N, and crank M give the requisite motion to the levers G, G, and knives I, I, to produce the required taper for the shingles in their passage through between the knives, or by

a one half revolution of the crank M. To remedy any imperfection in the operation of the lever G, G, another arrangement may be used as shown in Figs. 7 and 8 in which
5 two rock shafts U, U, with eccentrics J, J, are used, and the levers V, V, are hung at their ends at γ , upon a bearing attached to the frame as shown Fig. 8, the operation in other respects being similar to that already
10 described.

I do not claim the general principle of splitting off a piece from the block thick

enough to make two or more shingles and then subdividing it, neither do I claim the combination of two or more riving knives 15 for that purpose; but

I claim—

Making the yielding bed R, R', in two parts and arranging those parts in the manner herein described and represented.

HENRY J. WESTON.

Witnesses:

THOS. T. HOW,

JOHN B. FAIRBANK.