

C. M. YOUNG.
STAVE JOINTER.

No. 29,449

Patented July 31, 1860.

Fig. 2.

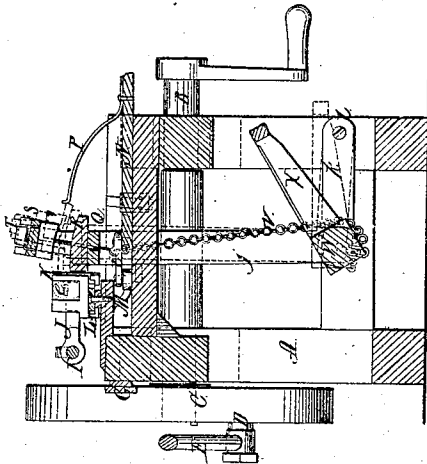
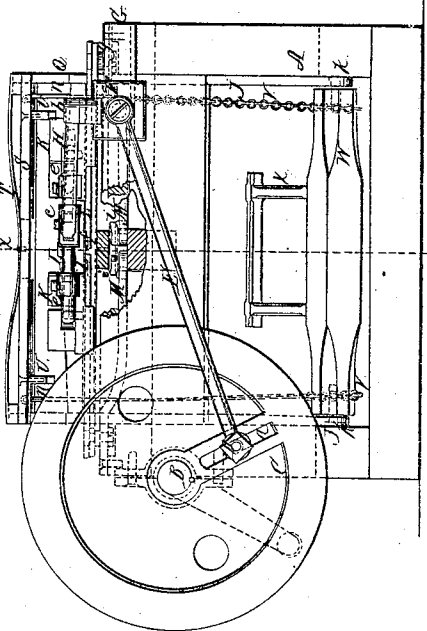


Fig. 1.



Witnesses:
J. W. Cooley
R. S. Spencer

Fig. 5.

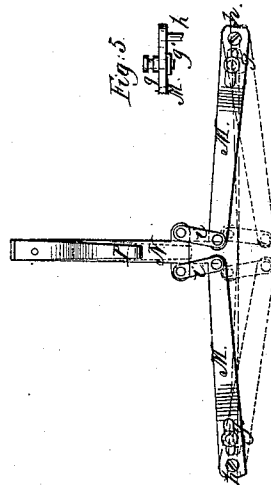
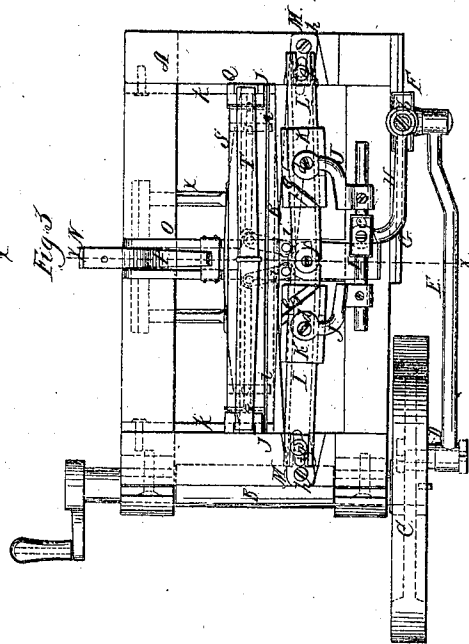


Fig. 4.



Inventor:
C. M. Young
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UNITED STATES PATENT OFFICE.

C. M. YOUNG, OF SINCLAIRSVILLE, NEW YORK, ASSIGNOR TO HIMSELF, E. H. BROWN, AND
E. BROWN, OF SAME PLACE.

STAVE-JOINTING MACHINE.

Specification of Letters Patent No. 29,449, dated July 31, 1860.

To all whom it may concern:

Be it known that I, C. M. YOUNG, of Sinclairville, in the county of Chautauqua and State of New York, have invented a new and Improved Machine for Jointing Staves; 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 invention a portion of the framing being taken away; Fig. 2 a transverse vertical section of the same taken in the line *x, x*, Figs. 1 and 3; Fig. 3 a plan or top view of the same; Fig. 4 a detached plan view of a portion of the same; Fig. 5 a detached edge view of the outer part of one of the levers *M*.

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

The object of this invention is to obtain a machine by which staves may be jointed with a greater or less bilge according to their width—or, in other words, have their edges cut with a greater or less degree of taper each way from their center outward according to the bilge required, the latter being determined by the width of the stave, the wider the stave the greater the taper and vice-versa.

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

A, represents a framing which may be constructed in any proper way to support the working parts of the machine.

B, is a driving shaft at one end of the framing, and C, is a wheel at one end of the driving shaft, said wheel being provided with a radial slot *a*, in which an adjustable wrist pin D, is fitted, see Fig. 1.

E, is a rod one end of which is connected to the wrist pin D, and the other end attached to a slide F, which is fitted on a suitable guide G, attached to the framing as shown in Figs. 1 and 3.

H, is a curved rod or bar one end of which is fitted to the slide F, by a screw or pivot *b*, the opposite end of said rod or bar being connected by a pivot *c*, to a rod L, which has two curved arms J, J, attached to it.

To the outer end of each arm J, there is a planer K, secured by a pivot *d*. These planers have their cutters *e*, placed relatively

in opposite positions as shown in Fig. 3, and each planer is fitted on a guide L, the inner ends of which are connected by a joint *f*. The outer ends of the guides L, are slotted longitudinally, and in said slots pins *g*, are fitted, said pins being attached to levers M, M, the outer ends of which are secured to the framing by fulcrum pins *h*. The pins *g*, are adjustable being secured by nuts *g'*, in oblong slots in levers M. The inner ends of the levers M, M, are connected by arms or links *i, i*, to a slide N, which is placed in a guide O, on the framing and is allowed to slide freely back and forth therein. To the slide N, a spring gage P, is attached the use of which will be presently described.

Q, is a frame which is composed of two uprights *j, j*, the lower ends of which are secured to arms *k, k*, at right angles, the arms *k*, being pivoted to the framing A, at V. Between the upper parts of the uprights *j, j*, there is secured a bed piece R, on which the staves to be operated upon are placed and secured by a clamp-bar S, the ends of which are slotted longitudinally and fitted on the upper ends of the uprights *j, j*. To the clamp-bar S, a spring T, is attached, said spring having a tendency to keep the clamp-bar in an elevated state. The clamp-bar S, is slotted longitudinally and two projections U, U, are attached to the clamp bar by screws *m, m*, which pass through its slots.

To each end of the clamp bar S, there is attached a rod *n*, and these rods pass down through the bed piece R, and are connected by chains V, V, to a shaft W, which is fitted between the lower ends of the uprights *j, j*, and has a treadle frame X, attached to it.

The operation is as follows: The stave to be jointed is placed on the bed piece R, and secured thereon by depressing the treadle frame X, with the foot, the projections U, bearing on the stave. The operator then shoves forward the slide N, until the gage spring P, strikes the edge of the stave. This movement of the slides N, actuates the levers M, and the latter through the medium of the pins *g*, adjusts the slides L, L, so that the latter will have a more or less oblique position relatively with each other. The shaft B, is rotated by any convenient power and a reciprocating movement is given the planers K, K, from the wheel C, by means of the rod F, the planers as the frame Q, is

shoved forward jointing the stave with a greater or less degree of taper according to the obliquity of the guides L, the latter being regulated by the width of the stave itself in adjusting the gage spring P, to it. Thus it will be seen that each stave will be jointed with a taper in proportion to its width so that each stave whether wide or narrow will have its proper bilge.

10 Staves of different lengths may be jointed by varying the length of the stroke of the planers which is done by adjusting the wrist pin D, in its slot *a*, and a greater or less adjusting movement of the guides L, L, relatively with that of the levers M, may be

obtained by varying the position of the pins *g*.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is—

The arrangement of the slide F, curved rod H, rod I, and arms J, J, substantially as shown to admit of the operating and the working of the planers K, on the guides L, at varying degrees of obliquity of the latter for the purpose specified.

C. M. YOUNG.

Witnesses:

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