2 Sheets—Sheet 1.

J. A. SEAMAN.

Stave-Jointing Machine.

No. 203,654. Patented May 14, 1878.

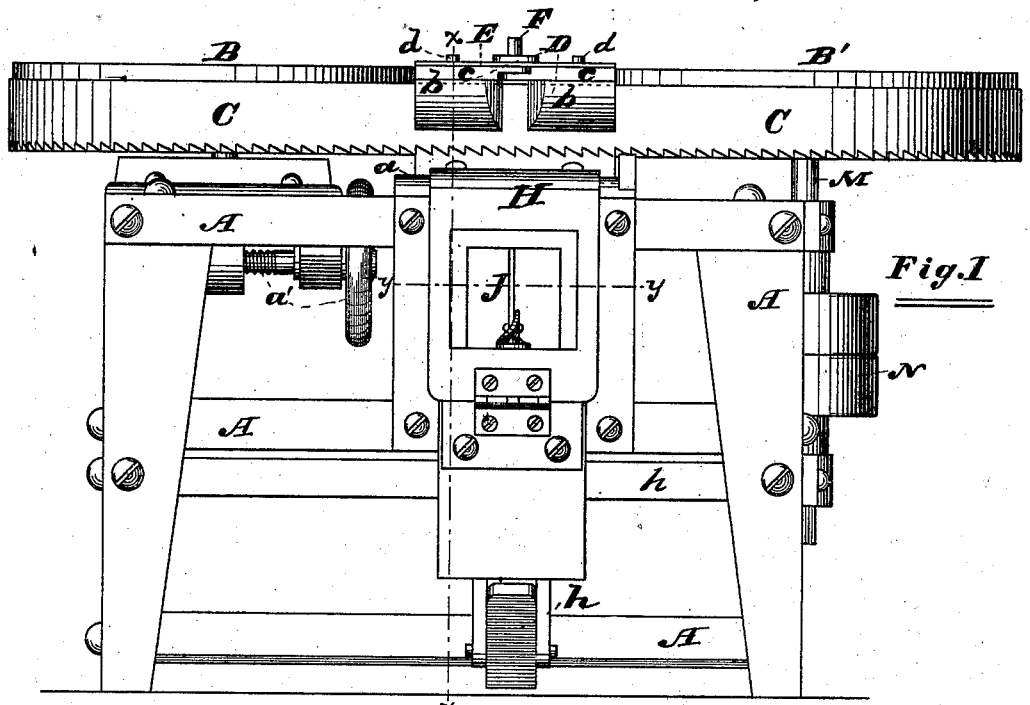

Fig. 1

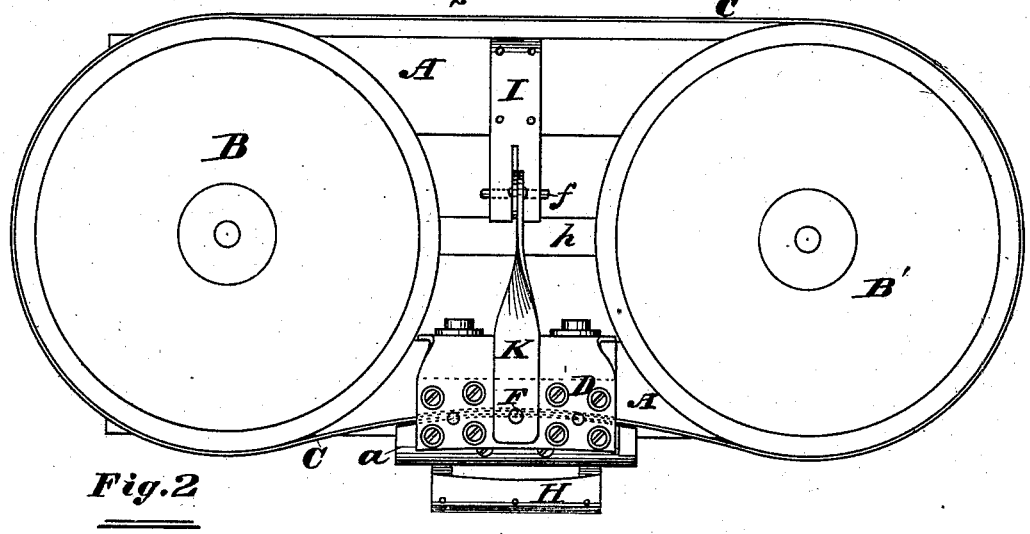

Fig. 2

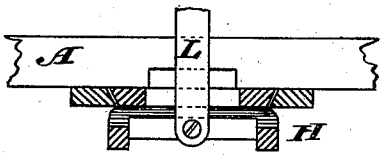

Fig. 3

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2 Sheets—Sheet 2.

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Stave-Jointing Machine.

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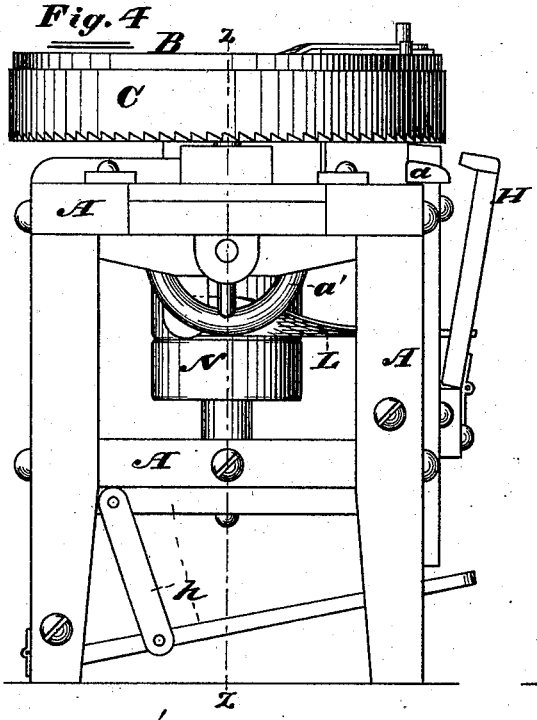
Fig. 4



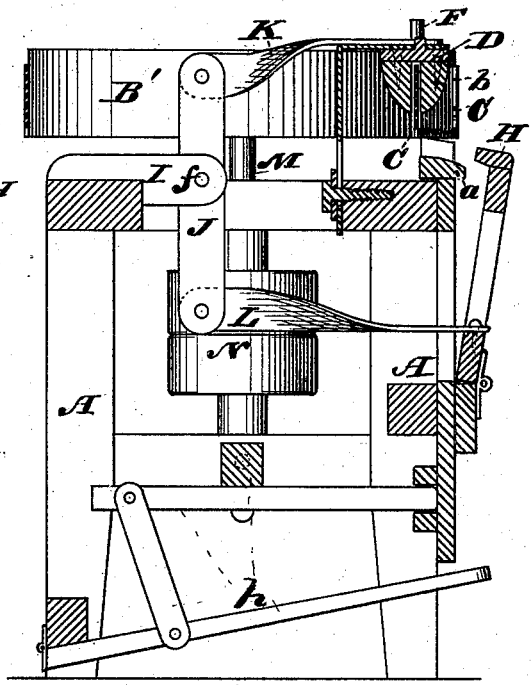


Fig. 5

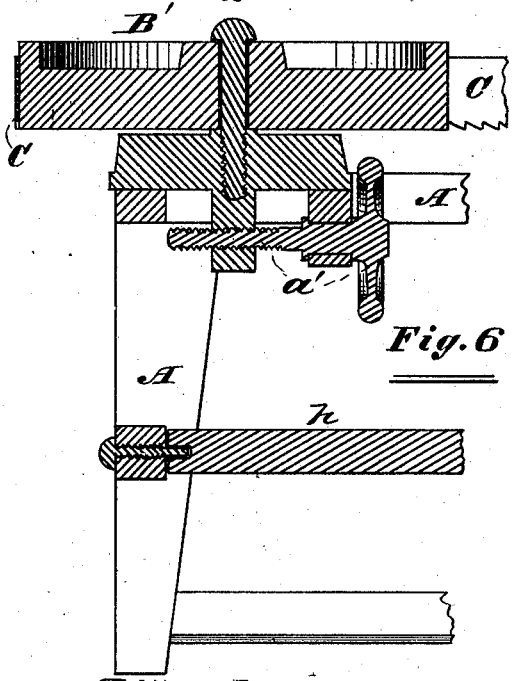


Fig. 6

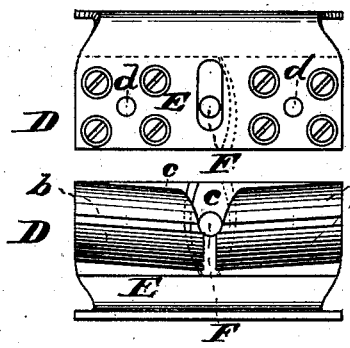


Fig. 7

Fig. 8

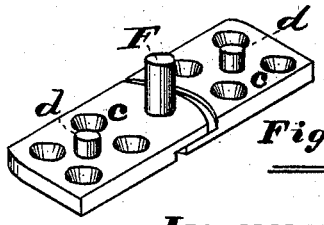


Fig. 9

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UNITED STATES PATENT OFFICE.

JOHN A. SEAMAN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN STAVE-JOINTING MACHINES.

Specification forming part of Letters Patent No. **203,654**, dated May 14, 1878; application filed March 18, 1878.

To all whom it may concern:

Be it known that I, JOHN A. SEAMAN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stave-Jointing Machines; and I hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation, giving a front view; Fig. 2, a view looking from above; Fig. 3, a sectional detail view taken on the line *y y*; Fig. 4, an end view; Fig. 5, a central cross-section taken on the line *x x*, Fig. 1, Sheet 1; Fig. 6, a central section; and Figs. 7, 8, and 9, sectional detail views.

The object of my invention is an improvement in machines for jointing staves, by means of which the work can be performed in a very expeditious and accurate manner, whereby the staves are cut at any desired bilge and bevel, proportioning the same according to the width of the stave.

In the drawings, A represents a frame of suitable form and construction, provided on its front side with an adjustable feed-table, *a*, having an up-and-down movement, and operated by means of a treadle.

Two revolving drums, B B′, are placed in a horizontal position on the frame A, and having a vertical central axis of revolution. The drum B is secured to a sliding table, and by means of the adjustable screw-tightener *a′* the distance between the two drums is increased or decreased as may be required.

C represents a band or endless saw running upon the drums B B′. D is a former, through which the saw runs. The jaws *b b* of this former are on a radial line, as shown by the dotted lines in Fig. 2, Sheet 1, of the drawings, and thereby impart a corresponding curvature to the saw at this point, the stave being fed to the saw where it passes through the former D, it, in turn, receiving the required bilge and bevel to form true joints in the construction of the barrel or cask. The former D is composed of several parts, as will be seen by reference to Figs. 7, 8, and 9, Sheet 2, of the drawings.

c c represent a plate, to which the jaws *b b* are attached. This plate is in two distinct parts, being divided in the center on a radial line, as shown in Fig. 9 of the drawings, and by the dotted lines in Fig. 7. This plate *c c*, being in turn covered by the cap E, said cap turning at right angles with a downward direction, as shown by the longitudinal dotted line in Fig. 7. The lower end of this cap is secured to the top piece of the frame A.

A pin, F, passes down through an oblong aperture in the top of the cap E, and is secured in a part of the plate *c c*. *d d* are two pivots passing down through the cap E and entering the plate *c c*, these pivots supplying the axial center necessary to the parts or pieces forming the plate *c c*. The particular function of these parts will be more fully explained hereinafter in the practical operation of the machine.

a represents a feed-table having an up-and-down movement. To the upright part of this table is secured, by means of a hinge or any other suitable flexible attachment, the feed or guide bar H.

A bracket, I, is attached to a part of the supporting frame-work, as shown in Fig. 5 of the drawings, the other end being slotted so as to receive the vertical lever J, this lever having the axial pin *f* through its longitudinal center, as shown in Fig. 5 of the drawings. To the upper end of the lever J is pivoted one end of the arm K, which projects at right angles therefrom, the opposite end of this arm being attached to the pin F inserted in the former D.

L represents a corresponding arm, one end of which is attached to the lower end of the lever J and the other fastened to the feed-bar H. *h h h* represent the treadle and connecting parts between it and the table *a*, by means of which the feed mechanism is operated. M is a vertical shaft, upon which runs the drum B′ and the driving-pulley N.

The general construction and operation of my machine are similar to that in machines for like purposes; but the most essential point in my invention, and what I claim as new, is the former for imparting to the saw the required curvature in connection with the automatic feed device, the purpose and operation of which are as follows: The guide-bar H, having

a flexible attachment at the lower end, admits of a free movement of the upper end for proper adjustment to staves of different widths, as when a wide stave is placed on the feed-table *a* the upper end of the guide-bar H is forced back therefrom, which movement, in turn, is transmitted, by the connecting-arm L, the lever J, and the arm K, to the former D, which forces the saw back sufficiently far to give to the wide stave the same proportionate bilge and bevel as given to a stave of less width.

The inner ends of the two pieces forming the plate *c c* have a very slight movement, in order to properly adjust themselves to this automatic-feed arrangement.

With this device it will be seen the proper bilge and bevel will always be given to the stave in accordance to the width thereof.

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

1. In a stave-jointing machine, the former D, consisting of the jaws *b b*, the plate *c c*, the pivots *d d*, the pin F, and the cap E, in combination with the endless saw C, the whole being arranged and constructed in the manner set forth, and for the purpose specified.

2. In a stave-jointer, the combination of the saw C, the former D, the pin F, the arm K, with the vertical lever J, the arm L, the adjustable guide-bar H, and the feed-table *a*, connected and operating in the manner set forth, and for the purpose specified.

JOHN A. SEAMAN.

Witnesses:
L. B. CRUPLAND,
L. A. BUNTING.