R. W. GEORGE.

Machines for Jointing Staves.

No. 135,903. Patented Feb. 18, 1873.

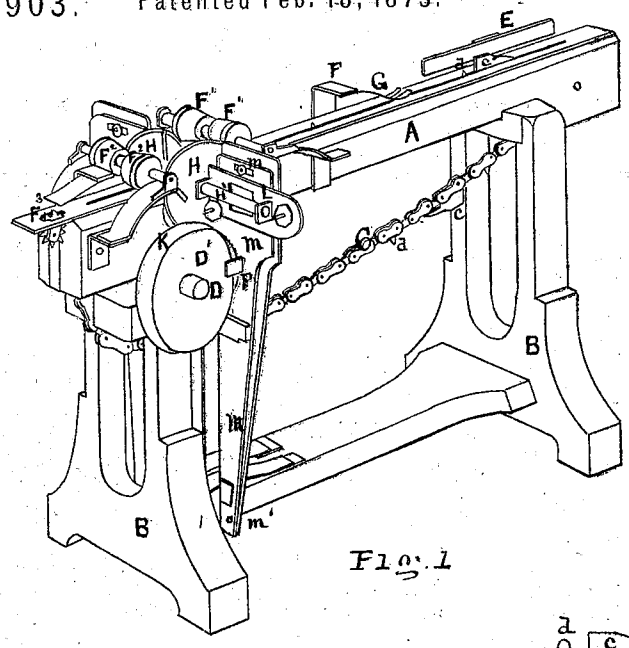

Fig. 1

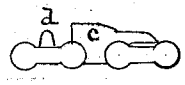

Fig. 4

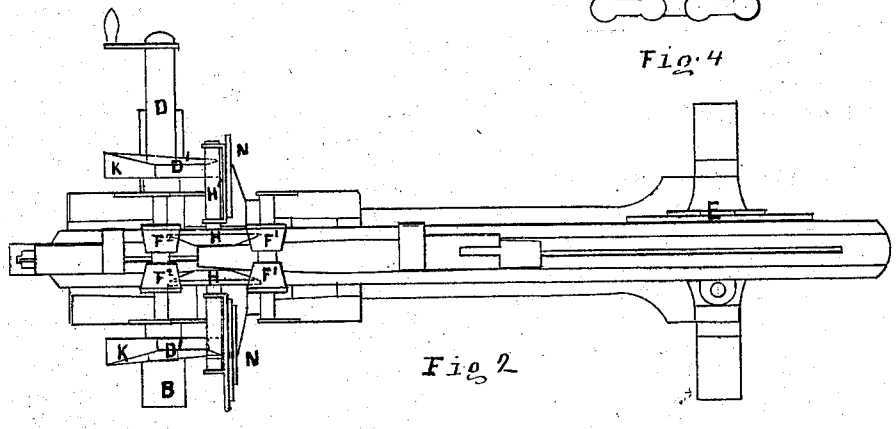

Fig. 2

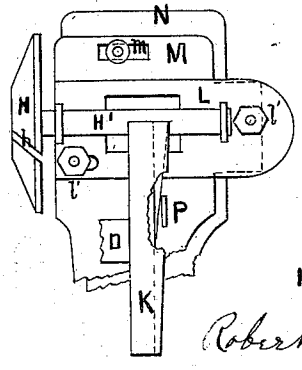

Fig. 3

WITNESSES.

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ROBERT W. GEORGE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR JOINTING STAVES.

Specification forming part of Letters Patent No. **135,903**, dated February 18, 1873.

To all whom it may concern:

Be it known that I, ROBERT W. GEORGE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Machine for Jointing Staves, of which the following is a specification:

The Nature of the Invention.

The nature of my invention consists, first, in combining, in a stave-jointing machine, a pair of automatically-moving cutters with a feed-chain; second, in combining, with the feed-chain and the cutter-holding frame, cams so arranged as to cause the cutters to move—that is, adjust themselves to the varying width of the stave that passes between them; third, in some of the mechanical details, which will be best understood by reference to the specification.

Description of the Drawing.

Figure 1 is a perspective view of my machine. Fig. 2 is a plan of the same. Fig. 3 is an elevation showing one of the cutters with its housing; also its method of attachment; also the cam for moving it in and out to accommodate it to the width of the stave. Fig. 4 is a part of the feeding-chain, showing the device for holding the stave upon it.

General Description.

Let A B represent the bed-plate and frame of my machine. Within the bed-piece A an endless chain, C, traverses. This endless chain is driven by a sprocket-wheel attached to the shaft D, and is provided with a number of buttresses, *c*, and spurs *d*, which serve, in connection with the spring G and rollers F^1 F^1, to feed the staves between the cutter-heads H H. The roller F^2 F^2 and the spur-wheel F^3, Fig. 1, serve to keep the stave in place as it passes out of the machine; or other equivalent devices may be used in place of the spur-wheel to accomplish the same object. The cutter-heads H H are beveled, as shown in Figs. 2 and 3, and are provided with knives *h*. These cutters are hung upon shafts H′, which are attached to an adjustable bed-piece, L. This bed-piece L is attached to the swinging arm M by the screws *l l′*. These screws work through slots to admit of the adjustment of the plate L and the cutter H. The swinging arm M swings on a pivot, *m′*, Fig. 1, and is guided at its upper end by a rivet and collar, *m*, passing through a slot and attached to the fixed plate N. D′ is a disk attached to the shaft D, and has upon its periphery a cam-plate, K, which, as it revolves, contacts with the stud P on the swinging arm M, and causes the arm to move, carrying with it the cutter-head H. The counter motion of the swinging arm M is caused by springs or weights, the whole being so arranged that, as the shaft D revolves, carrying with it the feed-chain C and the stave to be jointed, the cutters H and H move outwardly and inwardly, thus accommodating themselves to the shape of the stave. The cutter-heads are adjustable on the swinging arm M by means of the screws *l l′*, so they may be adapted to staves of joints differently inclined. The cam-plate K is made movable, so that others may be put in its place to accommodate the machine to cutting different styles of staves. E, Figs. 1 and 2, is a gage to assist the operator in placing the stave upon the feed-chain.

I claim as my invention—

1. The feeding-chain C, in combination with guide, E, pressure-rolls, spur guide-wheel F^3, and cutter-heads H H, operating as specified.

2. The chain C provided with dogs *c* and spurs *d*, in combination with pressure-rolls F^1 F^2, cutter-heads H H mounted on sliding frames L on adjustable plates M, and operated by cams K, in the manner and for the purpose set forth.

ROBERT W. GEORGE.

Witnesses:

FRANK G. PARKER,
JOHN HALEY.