2 Sheets--Sheet 1.

H. S. WILEY.

Improvement in Stave-Equalizers.

No. 114,073. Patented April 25, 1871.

Fig. 1.

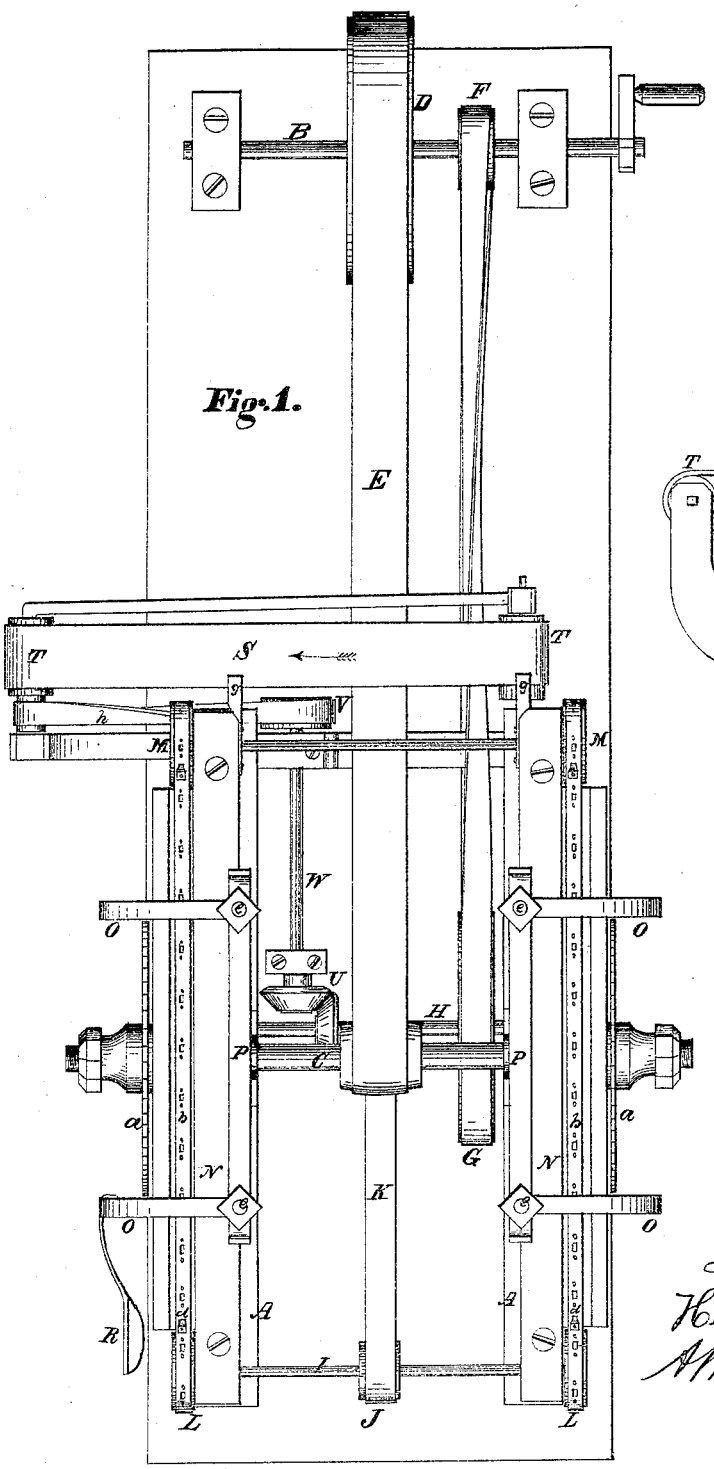
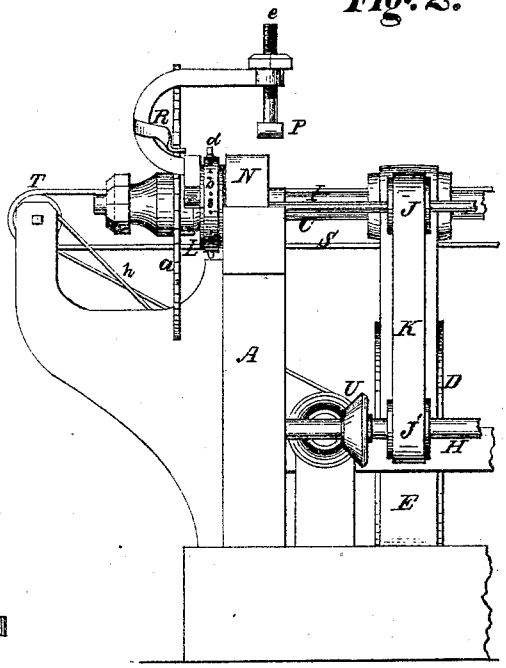


Fig. 2.



Inventor:
Hiram. S. Wiley

Attest.
Henry Connett Jr
A M Connett

2 Sheets--Sheet 2.

H. S. WILEY.

Improvement in Stave-Equalizers.

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Fig. 4.

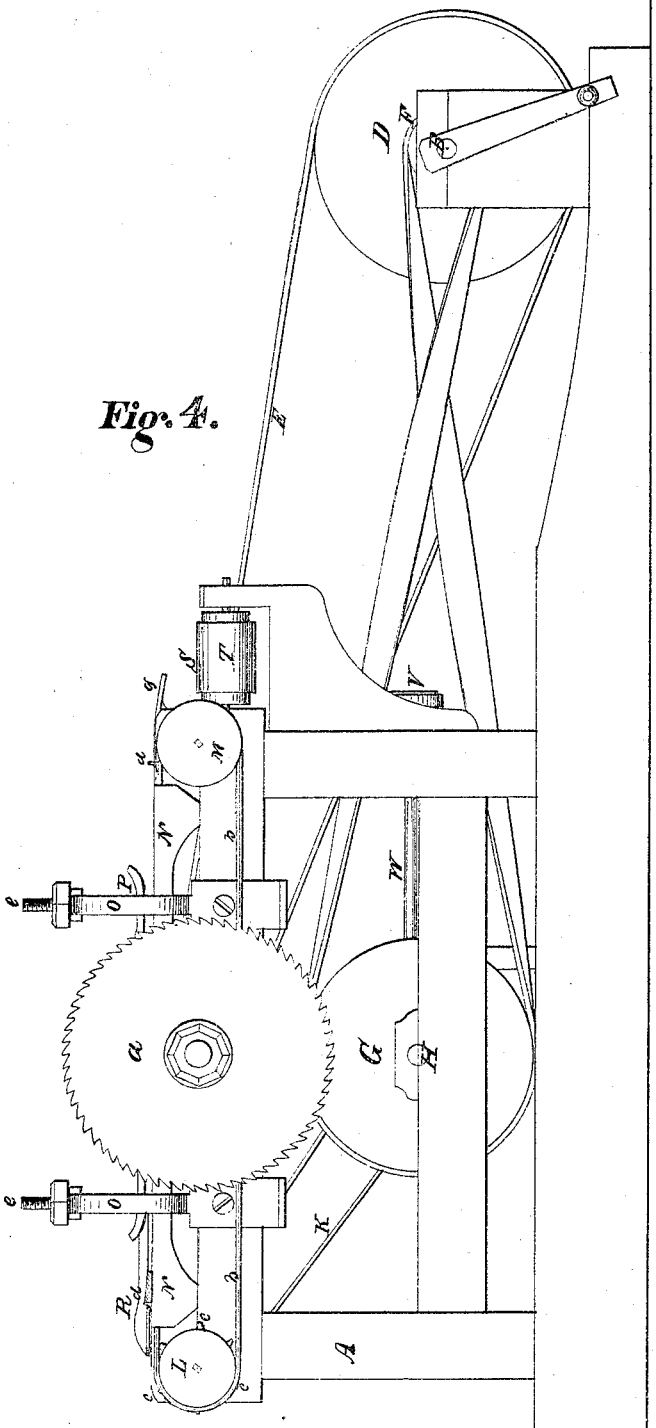
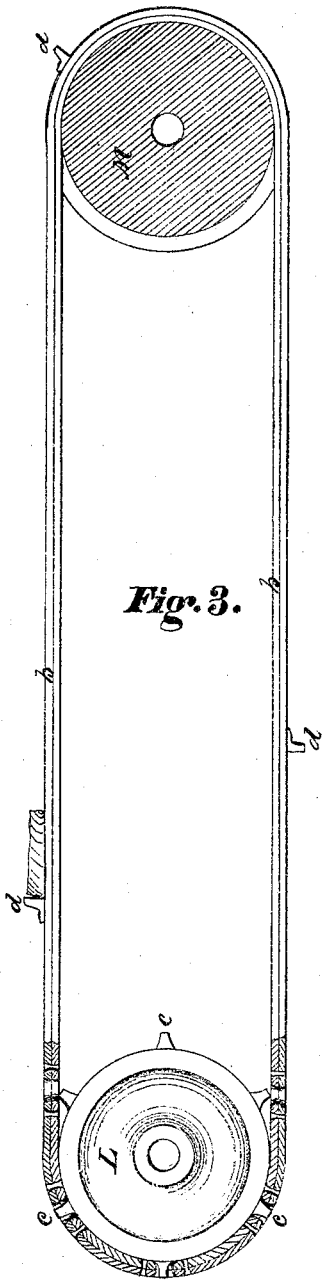


Fig. 3.



Witnesses.
Henry Connett Jr
A. M. Connett

Inventor.
Hiram S. Wiley

United States Patent Office.

HIRAM S. WILEY, OF MADISON, INDIANA.

Letters Patent No. 114,073, dated April 25, 1871.

IMPROVEMENT IN STAVE-EQUALIZERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HIRAM S. WILEY, of Madison, Jefferson county, Indiana, have invented an Improved Stave-Equalizer, of which the following is a specification.

The object of this invention is to combine in one machine a self-acting device for feeding the staves to the saws, and another device for carrying them to the shaving-machine after they are equalized without the usual intervention of hand labor.

The principal feature of novelty in my invention consists in the combination of mechanism by means of which the stave is cleared from the feed-belts and delivered upon the cross-belt.

In the drawing—

Figure 1 is a plan of my machine;

Figure 2, a front view of one-half of the machine;

Figure 3, an enlarged view of the feed-belt and pulleys; and

Figure 4, a side elevation of the machine.

Like letters of reference designate corresponding parts in all the figures.

Let A represent the main frame of the machine, and

B the counter-shaft, from which motion is derived.

C is a mandrel, bearing a circular saw on each end.

This shaft receives motion from the driving-pulley D through the belt E.

A smaller driving-pulley, F, on the counter-shaft, gears with and drives a pulley, G, on the shaft H, and this shaft in turn drives a shaft, I, at the front end of the machine, the motion being imparted through the medium of the pulleys J J' and belt K.

On each end of the shaft I, outside of the main frame, are securely attached chain-pulleys L L, for driving the endless belts *b b* which pass around these pulleys and a similar pair of flanged pulleys, M M, at the rear end of the machine.

My method of constructing the belts *b b* is shown in fig. 3 enlarged.

I make the belt of two or more thicknesses of leather, and perforate it at the proper distance apart to insure its engaging with the projections on the chain-pulley L. It is then securely riveted together at intervals, as shown. By this arrangement the belt is effectually prevented from slipping.

A suitable number of studs, *d d*, are securely attached to the belt, as shown. In this case three studs, equally spaced, are used; but their number will depend on the speed given to the feed-belt.

The belts *b b* traverse grooved guides or bearers N N, the upper surface of the said bearers being slightly above the upper surface of the belts, the studs *d d* alone projecting above.

The device for holding the stave down consists of four curved arms, O O, arranged in pairs on each side of the machine, as shown. These are secured below to the main frame, and have each an eye in the upper end overhanging the main frame of the machine.

Pressers P P are provided with upright rods *e e*, which pass through eyes in the curved arms. The upper ends of these rods are threaded and carry heavy nuts, which serve as weights to keep the pressers down, and also serve to adjust them to the proper height above the bearers N N. The ends of the pressers P P are bent slightly upward so as to permit the stave to pass under easily, in the manner of a wipe.

R is a gauge, secured to one of the curved arms. This serves as a guide to the attendant, and insures the sawing of both ends of the stave.

The above description includes the equalizer proper.

The operation is as follows:

The attendant lays the stave across the bearers N N at the front of the machine, being guided by the gauge R.

As the feed-belts are carried around the studs *d d* come in contact with the stave (see fig. 3) and carry it forward to the saws.

In its route it must pass under the pressers P P, which adjust themselves to its thickness and hold it firmly down until it clears the saw.

It is then carried on to the rear of the machine, where it is launched from the inclined ways *g g* onto the endless cross-belt or transverse apron S.

This belt passes around drums or pulleys T T, and is driven from the feed-shaft H through the medium of the miter-gears U and pulley V on the shaft W, the latter pulley being connected, by a belt, *h*, with one of the drums T.

The apron S may be of any desired length, and can be driven in either direction by means of crossed belts. In the present case it moves in the direction of the arrow.

Having thus described my invention,

I claim—

In combination with the within-described self-feeding and equalizing device and gauge R, the inclined ways *g g* for clearing the stave from the feed-belts, when arranged substantially as shown, and for the purposes set forth.

HIRAM S. WILEY.

Witnesses:

HENRY CONNETT, Jr.,

A. M. CONNETT.