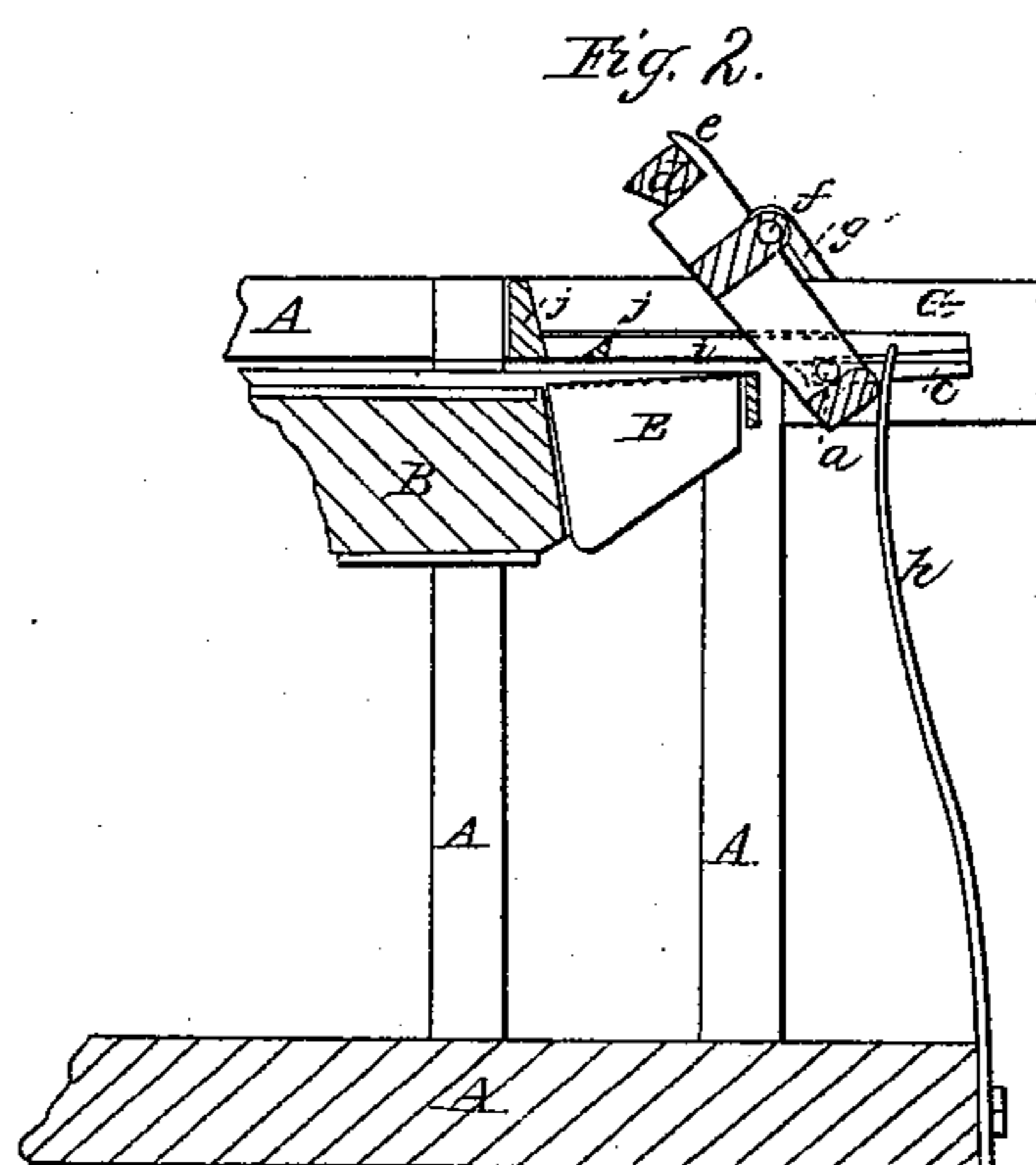
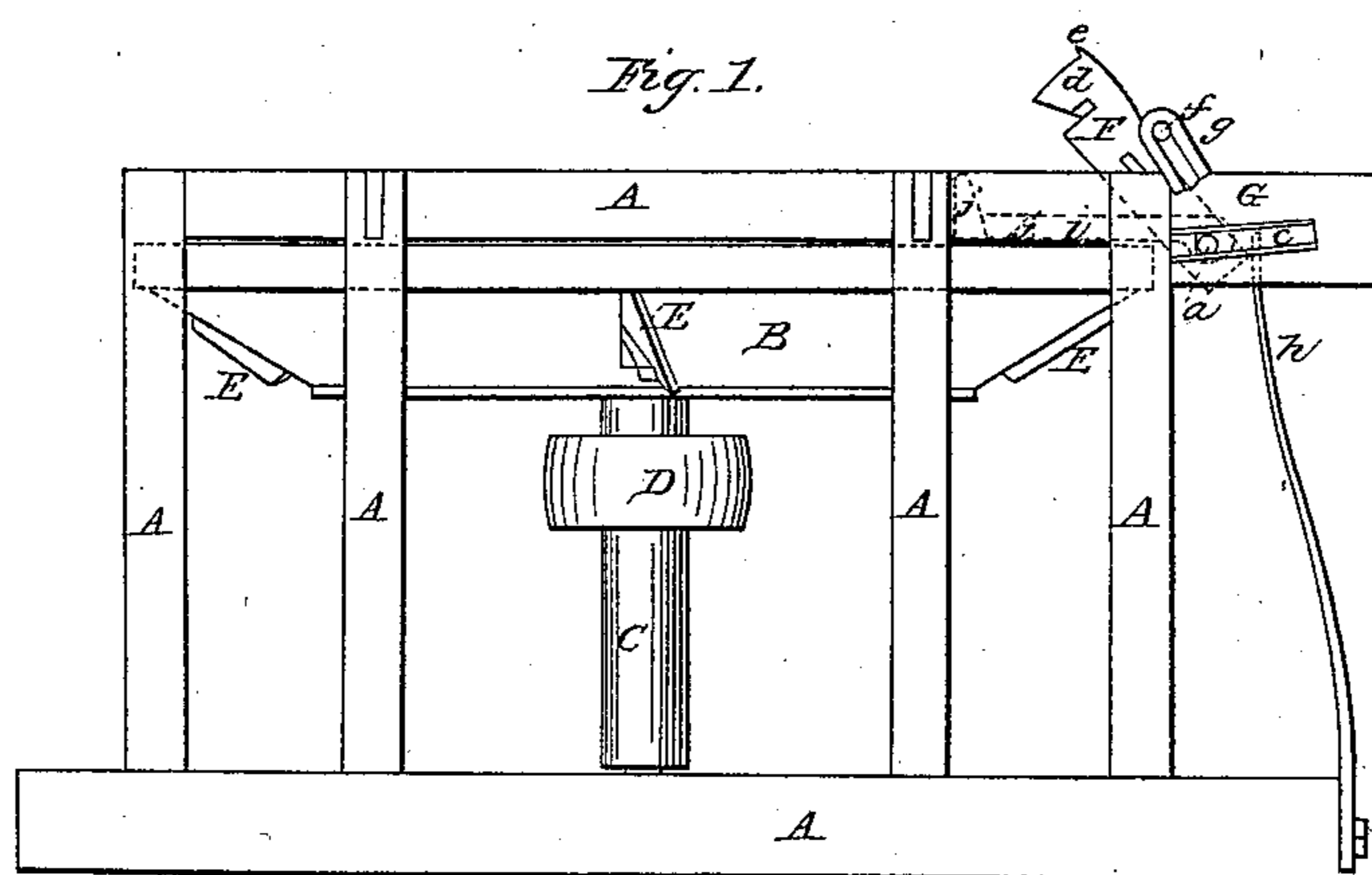


A. Wilbur,
Joining Staves.
N^o 10,683. Patented Mar. 21, 1854.



UNITED STATES PATENT OFFICE.

ALEXANDER WILBUR, OF LANCASTER, PENNSYLVANIA.

MACHINE FOR JOINTING STAVES.

Specification of Letters Patent No. 10,683, dated March 21, 1854.

To all whom it may concern:

Be it known that I, ALEXANDER WILBUR, of Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Jointing Staves; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1 represents a side view of the machine; and Fig. 2, a vertical section through the center of the swing frame, with a portion of the concave dressing wheel.

Similar letters in both figures denote like parts.

The nature of my invention relates to the method of jointing staves of variable widths, each with its requisite bilge, without adjusting the machine, it having a self-operating adjustment for each and every width. Also in combination with the swing frame in which the stave is presented to the cutter wheel, the guides which move with it, for the purpose of holding the edge of the stave being dressed firmly to the wheel of cutters.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same in connection with the drawings.

The frame A, may be constructed in any well known substantial manner, so as to support a cutter wheel B, on a vertical shaft C, provided with a pulley D, over which a belt from any first mover may pass. The top face of the cutter wheel B, is concave and provided with any required number of cutters E, E, &c. At one side of the frame I arrange a swing frame F, into which the stave is placed to be presented to the cutter wheel. The staves are not bent or sprung in the swing frame but lie perfectly straight, the concavity of the jointing wheel giving it the proper bilge. The swing frame F, has an axis or journal *a* which has no fixed bearing, but moves in a slot *c*, which is on the same plane with the concave surface of the jointing wheel.

d is a shoulder, and *e*, a lip or projection on the end of the swing frame against and under which the stave is held, against the

action of the cutters, the distance between the axis *a*, of the swing frame, and the point where the stave is held, being one half the diameter of the barrel for which the stave is being dressed. A rod *f*, runs across the back of the swing frame permanently attached thereto, and the ends of this rod or bar pass into inclined staples or slots *g*, one at each side of the frame (though one only is seen in the drawings); and behind the swing frame is a spring *h*, to throw it forward and raise it up to receive or remove the stave. A bar *i*, one at each side of the swing frame is attached to the axis or rod *a*, and is made to slide in grooves cut in the pieces G, of the frame, and to the ends of these bars *i* are arranged two cross bars *j j*, beveled off on their opposite faces, and just far enough apart to admit the edge of the stave to be dressed, and prevent its moving in any other direction than vertically while being operated on. As these guide bars are connected to and move with the swing frame, they will be in place to receive any stave coming in to be dressed whether wide or narrow.

It will be perceived from the description that there need be no waste of material, previous assorting of staves, or adjustment of any of the parts to suit various sizes, as the staves may be dressed just as they are split or sawed from the bolt, and always with the proper bilge.

The operation may be summed up as follows: A stave is placed under, and against, the lip *e*, and shoulder *d*, and the operator by his hand presses the swing frame and stave in it toward the jointing wheel. As the edge is cut away and the swing frame continues to descend, the rod *f*, in the inclined staples *g*, draws back the swing frame, the slot *c* admitting the axis *a* of the said frame to move back in the plane of the wheel, constantly changing the point of action on the concave, so that whether the stave be wide or narrow it has its requisite bilge, without any loss of material.

Having thus fully described the nature of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. So hanging the swing frame, which

feeds up the stave to the jointing wheel, as that staves of variable widths may be dressed with the bilge necessary for said widths substantially as described.

5. 2. I also claim in combination with the swing frame the guides which move with it, for the purpose of firmly holding the stave

to the jointing wheel or cutters substantially as described.

ALEXANDER WILBUR.

Witnesses:

A. B. STOUGHTON,
SAML. GRUBB.