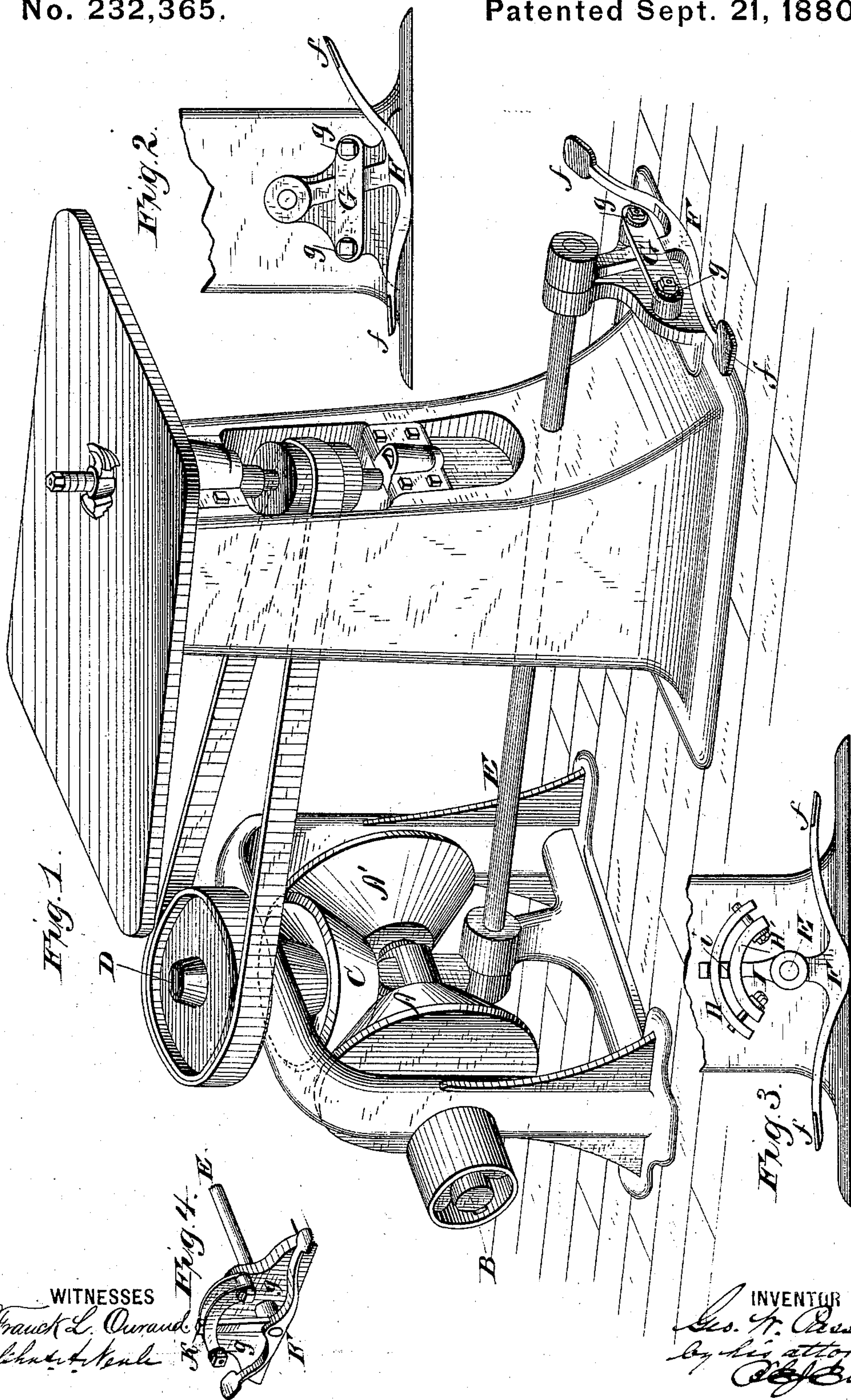


G. W. PASSELL.
Friezing Machine

No. 232,365.

Patented Sept. 21, 1880.



WITNESSES
Frauck L. Ourand
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INVENTOR
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UNITED STATES PATENT OFFICE.

GEORGE W. PASSELL, OF CINCINNATI, OHIO, ASSIGNOR TO J. A. FAY & CO.,
OF SAME PLACE.

FRIEZING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 232,365, dated September 21, 1880.

Application filed September 13, 1879.

To all whom it may concern:

Be it known that I, GEORGE W. PASSELL, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Friezing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention was more especially designed for use on wood-working machines which contain a reversing-gear for reversing the motion of the shaping or cutting tool; but the invention may be applied to other machine-tools.

Its object is to provide a means for operating the reversing-gear by the feet of the operator, aided by his weight, so that he may at all times have the free use of both hands for manipulating the work.

To this end the invention consists, mainly, in combining a treadle with the reverser.

In order that the invention may be clearly understood, I have illustrated the same in the annexed drawings, and will proceed to describe an edge-molding and friezing machine, showing the best form of the invention devised by me, together with some modifications in the details of construction.

Figure 1 is a perspective view of an edge-molding and friezing machine. Fig. 2 illustrates a front elevation of the treadle, reverser, and adjuncts. Figs. 3 and 4 exhibit modifications in the application of the treadle and its friction-clamp.

The same letters of reference are used in all the figures in designating identical parts.

The general construction of the edge-molding machine which has been selected to illustrate my invention being well known, it is considered unnecessary to describe it in detail, Fig. 1 of the drawings giving sufficient information, so that any one skilled in the art can make and use it.

The reversing-gear consists of the fast reverse cone friction-pulleys A A' on the counter-shaft B, the fast cone friction-pulley C on the

driving-shaft D, and the reverser E, adapted to slide the counter-shaft B, so as to force one or the other of the cone friction-pulleys A A' into frictional contact with the cone friction-pulley on the driving-shaft. The reverser E consists of a torsion rod or shaft having an upright arm to act on a sleeve on the counter-shaft between its cone friction-pulleys, and extends to the working front of the machine, being mounted in suitable bearings, as shown. To the front end of the reverser is fixed a treadle, F, which has a foot-piece, f, on both sides of its shank or axis, so that the reverser may be turned or rocked thereby in either direction. The foot-pieces should be arranged as near to the floor as practicable, so as to afford the greatest facilities to the operator for working the treadle with his feet and employing the weight of his body in part in shifting the treadle and in producing instantaneously an effectual frictional driving-contact between the cone friction-pulleys.

In order to preserve a driving frictional contact between the cone friction-pulley C and one or the other of the cone friction-pulleys A A' without a constant application of force to the treadle by the operator's foot, a clamping device is provided to hold the treadle by friction in any position to which it may be shifted by the operator. In the construction shown in Figs. 1 and 2 the shank of the treadle is confined between the front bearing of the reverser and an adjustable cross-bar, G, supported by two bolts on said bearing. Springs or spring-washers g are placed under the nuts of the bolts, so that the force with which bar G shall press against the shank of the treadle may be nicely adjusted and the bar be yielding to some extent. In Fig. 3 the friction-clamp consists of a fixed arc, H, and an adjustable arc, H', between which a lug, i, on an arm, I, of the treadle plays. In Fig. 4 an arm, K, on the treadle plays between a fixed and an adjustable arched bar. Thus the construction and application of the friction-clamp may be varied according to circumstances or the views of manufacturers. It might be applied to the reverser instead of to the treadle.

Where the reversing-gear consists of fast

and loose pulleys and belts the reverser or belt-shifter does not require to be held, and in such machines the friction-clamp may be dispensed with.

5 In all cases the treadle should be so located (preferably at or near the base of the working front of the machine) that the operator can conveniently operate it with his feet while his hands manipulate the work.

10 I am aware that the reverser of the reversing-gear of a molding-machine has been provided with a lever which could be operated either by hand or by foot. Hence I do not claim, broadly, the application of a foot-lever
15 to the reverser of a reversing-gear. My improvement consists in the use of a double

treadle; and by the term "treadle" I mean a foot-lever so disposed that the weight of the body can aid the foot or feet in working it.

What I claim as my invention, and desire 20 to secure by Letters Patent, is—

The combination, substantially as before set forth, of the reversing-gear, the reverser, the double treadle F, with foot-pieces *f f* near the floor, and the friction-clamp G.

25 In testimony that I claim the foregoing I have hereunto set my hand this 11th day of September, 1879.

GEO. W. PASSELL.

Witnesses:

EDWARD GURNEY,
WM. GUTHARDT.