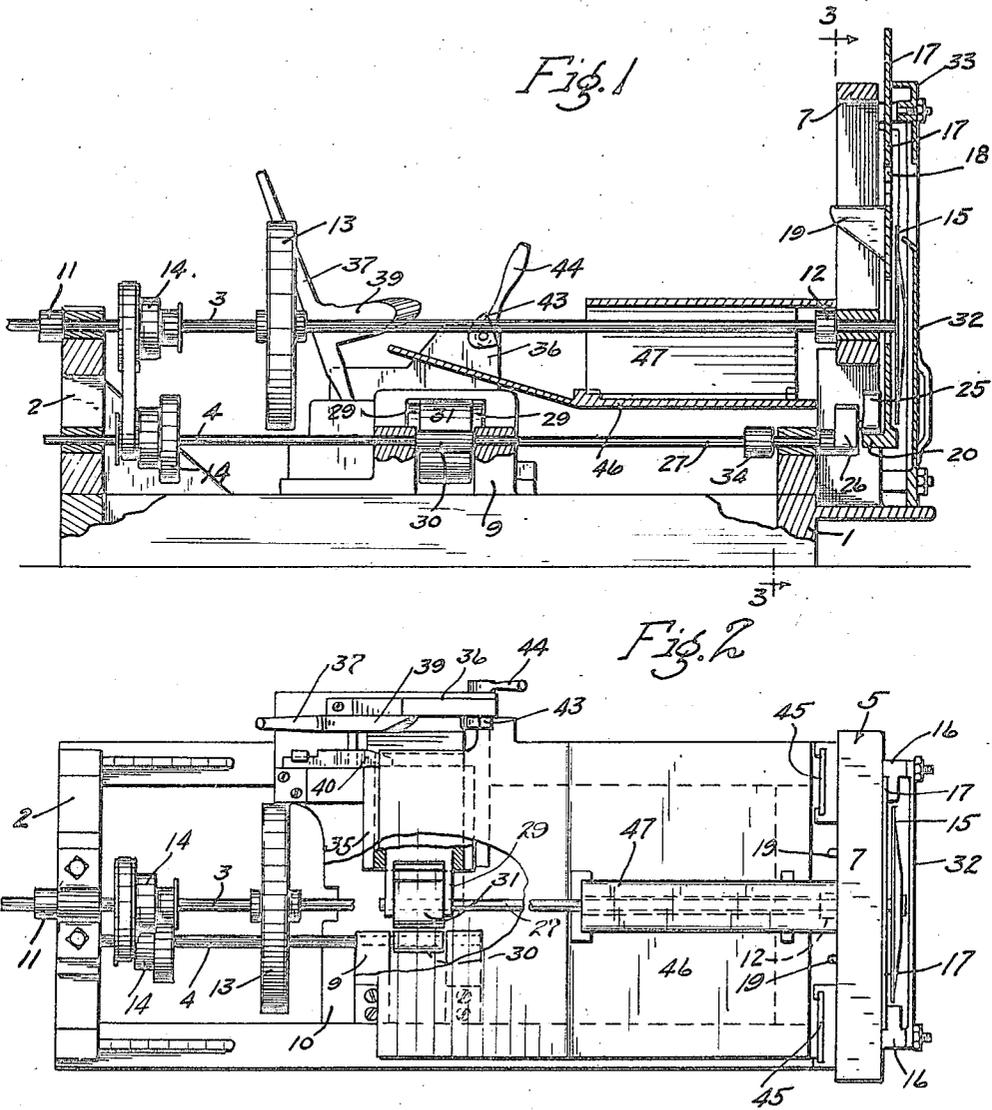


Jan. 2, 1923.

P. SOUCY,  
JOINTER,  
FILED JAN. 10, 1921.

1,441,038.

2 SHEETS—SHEET 1.



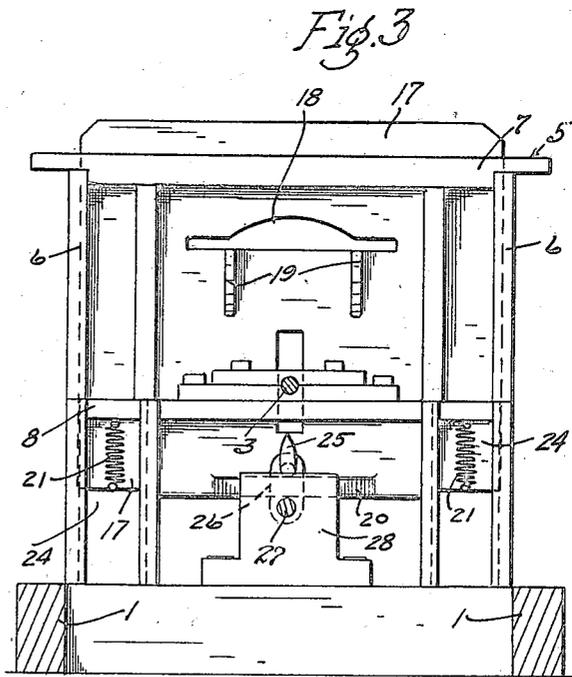
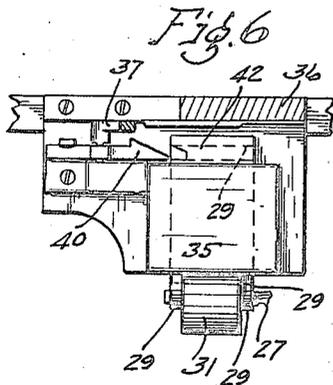
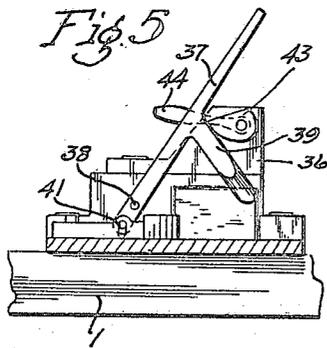
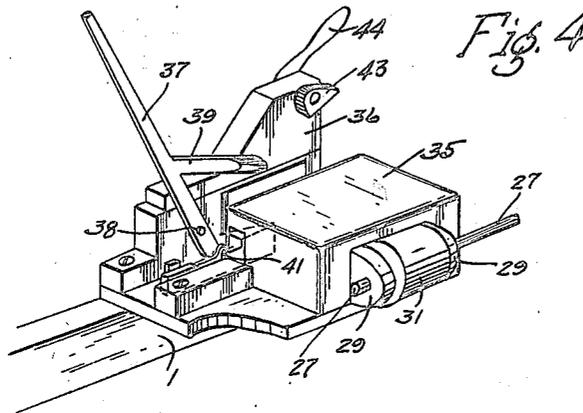
INVENTOR  
Philippe Soucy  
BY HIS ATTORNEY  
Jos. F. Williamson

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2 SHEETS—SHEET 2.



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BY HIS ATTORNEY  
Jos. F. Williamson

# UNITED STATES PATENT OFFICE.

PHILIPPE SOUCY, OF MINNEAPOLIS, MINNESOTA.

JOINTER.

Application filed January 10, 1921. Serial No. 436,141.

*To all whom it may concern:*

Be it known that I, PHILIPPE SOUCY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Jointers; 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.

This invention relates to a jointer, and particularly to that class of such machines used for the purpose of providing a perfect joint in making of barrel heads. As is commonly known, the head of a barrel is made of flat slabs forming various shaped sections of a circle. These slabs are made from irregular shaped pieces of lumber and the machine of the present invention is designed to cut the straight faces at each side thereof. The cut pieces are afterwards assembled and turned into circular shape.

The present invention is an improvement upon the machine shown in the Patent No. 637,358, granted to applicant November 21st, 1899. In that machine, the cutting operation was controlled by a device operated by the foot of the operator. It has been found in practice that this construction unnecessarily limits the speed of the operation.

It is an object of this invention, therefore, to so construct and operate the machine that the pieces can be cut with any desired speed and as rapidly as the same can be presented to the machine.

It is a further object of the invention to provide a machine in which the operator is not required to give any of his attention to controlling the movements of the machine, but merely presents the material thereto.

Another object of the invention is to construct a machine in which the material is presented to the cutting element with a movement which is relatively slow at its beginning but which is accelerated toward the final cutting end thereof.

A still further object of the invention is to provide driving and controlling means for the jointer which can be thrown into and out of operation at will and which can also be locked in operative position.

Other objects and advantages of the in-

vention will appear from the following description made in connection with the accompanying drawings in which like reference characters refer to the same parts throughout the different views, and in which—

Fig. 1 is a central longitudinal section of the device;

Fig. 2 is a top plan view thereof;

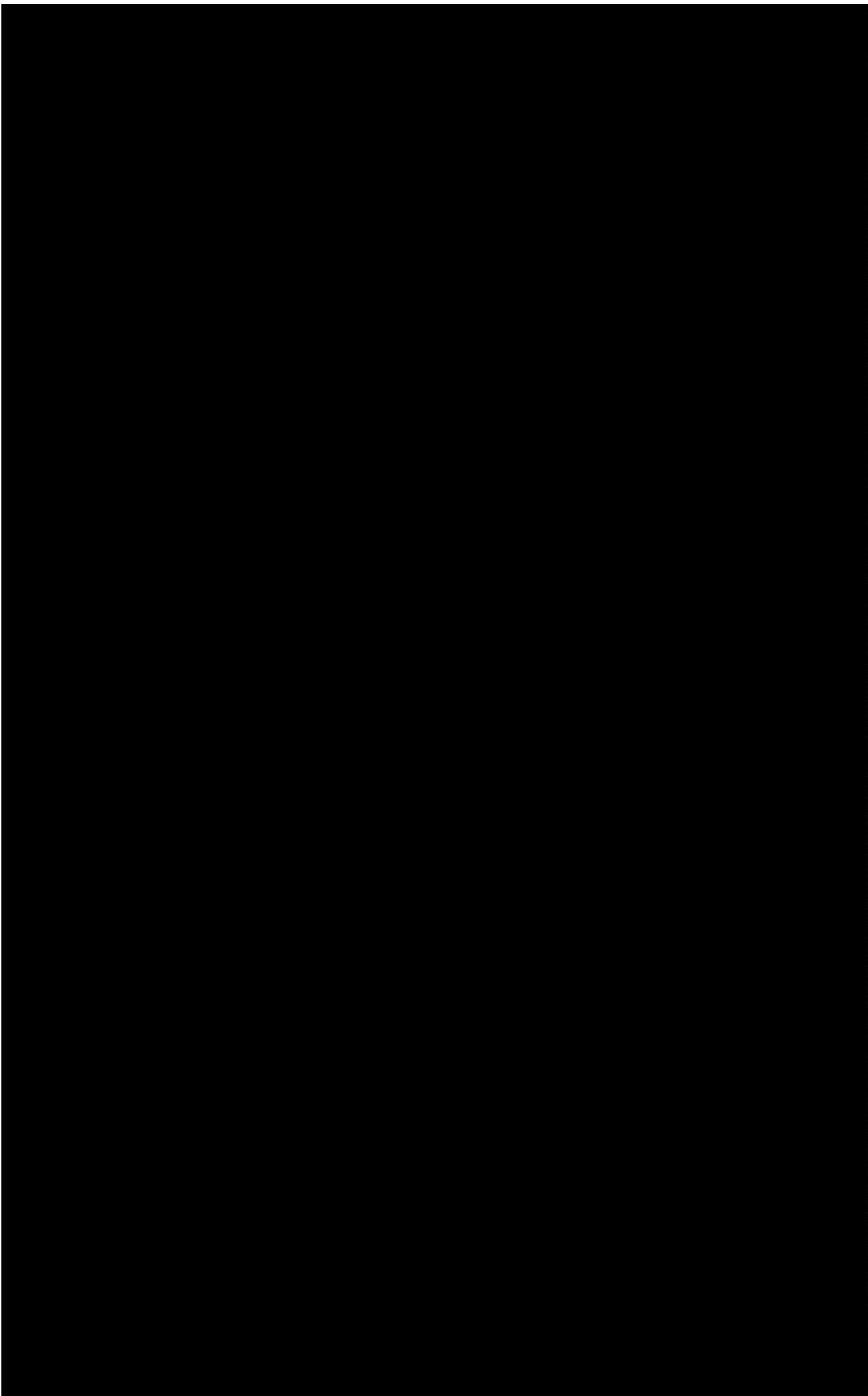
Fig. 3 is a section taken substantially on the line 3—3 of Fig. 1 looking in the direction of the arrows;

Fig. 4 is a perspective view of the driving controller mechanism;

Fig. 5 is a view in side elevation of part of said controller mechanism; and

Fig. 6 is a top plan view of part of the controlling mechanism.

Referring to the drawings, the machine is seen to comprise a base or supporting member 1 having longitudinal extending side members and end connecting members. At the rear end of the base member, which is left hand, as seen in Fig. 1, an end frame 2 is constructed of spaced side members and transversely extending members connecting for the same, and said frame affords bearings for two shafts extending longitudinally of the machine, one of which, designated as 3, is supported in the upper bearing and extends throughout the length of the machine and is journaled at the front end of the same in the bearing provided in the front end frame 5. This front end frame, as shown in Fig. 3, comprises side members 6 and cross members 7 and 8. The other of the shafts which is designated as 4 is journaled in the lower bearing in the end frame 2 and is also provided with bearings formed in the pillow block or bracket 9 mounted on a plate 10 which extends between the longitudinal members of the frame 1 at an intermediate point thereof. The shaft 3 is provided outside of the end frame 2 with a collar 11, and adjacent the end frame 5 with the collar 12, which collars hold the shaft in position longitudinally. The main driving pulley 13 is rigidly secured to the shaft 3 and said shaft also carries one of a pair of step driving cones 14, the other of which is mounted on the shaft 4 and is reversely disposed thereon in alignment with the one mounted on shaft 3. At its front end, out-



tends at its front portion to the end frame. By means of the casing 45 and 46, the revolving parts are covered and a platform is provided upon which the operator stands when operating the machine.

In operation, power will be transmitted to the machine by a belt connected to pulley 13 and rollers 30 and 31 will be thrown into engagement by manipulation of the lever 37. The desired speed can be selected by manipulating the belt on stop cones 14, and it will be seen that the crank 26 and eccentric 25 will be constantly rotated. By engagement of member 25 with the ledge 20 of plate 17, this plate will be forced downwardly against the tension of the springs and will be retracted upwardly again as the crank 26 completes this rotation. It will be noted that the plate 17 will be moved downwardly slowly at first, but will be gradually accelerated as it approaches its limit of downward movement. As used in practice, the plate 17 is designed to have substantially three inches of movement and the slot 18 is designed to be moved far enough down in front of the saw to produce a cut 20 inches in length with a saw four feet in diameter. The operator will stand upon the casing 46 and may straddle and sit upon the casing 47. He will take the rough boards or slabs and present the same into the slot 18 when the plate 17 is in its upper position. The slab will then be moved downwardly by the slot and the edge will be smoothly and squarely cut or faced off by the saw 15. The operator will so place the slab that he will get the longest straight edge possible from the stock. The piece cut from the slab will fall on the outside of plate 17 and will be directed by the in-turned end of plate 32 outside and to the front of the machine. The operator merely picks up the slabs from one pile and throws or places them upon another. He does not have to use his hands or feet in the control of the machine. When it is desired to stop the movement of the frame 17, the lever 37 will be again manipulated to separate the rollers 30 and 31. This will, however, not stop the rotation of the saw, and this will be stopped by discontinuing to drive the pulley 13 by the usual arrangement of loose pulleys placed on a counter shaft.

From the above description it is seen that applicant has produced an improved jointer and one in which the work can be done at high speed, being limited only by the ability of the operator.

The parts of the machine are comparatively few and simple in construction and can be made quite rugged so that small attention will be required to maintain the same in operation and repair. It will, of course, be understood that various changes

can be made in the form, details and arrangement of the device without departing from the scope of applicant's invention, which, generally stated, consists in the matter shown and described and set forth in 70 the appended claims.

What is claimed is:

1. A machine of the class described having in combination a continuously rotating circular saw, a reciprocating plate guided for vertical movement adjacent thereto, said plate having a transverse slot therein adapted to be moved downwardly within the perimeter of the saw, said plate having a projecting ledge at its lower end and rotating means comprising an eccentric engaging said ledge to move the plate downwardly, and yielding means for moving said plate upwardly, whereby a board held in said slot will be moved against the saw and cut thereby.

2. A machine of the class described having in combination a base member, a continuously rotating circular saw at one end thereof, spaced end frame members, a reciprocating plate guided for vertical movement in said members, adjacent the said saw, said plate having a slot therein adapted to be moved down within the perimeter of said saw, and having a ledge projecting from its lower end, means for moving said plate downwardly, comprising a continuously rotating shaft, a crank secured thereto and an eccentric member carried by said crank engaging said ledge and yielding means for moving said plate upwardly.

3. A machine of the class described having in combination a continuously rotating circular saw, a plate mounted for vertical reciprocation adjacent the top side of said saw having a slot therein extending transversely of the plane of the saw, said plate being adapted to be moved downwardly within the perimeter of said saw, yielding means for moving said plate upwardly, rotating means including an eccentric dog carried by a rotating crank for continuously engaging and regularly moving said plate downwardly comprising a shaft, a friction roller carried thereby and a second friction roller adapted to be moved into engagement with said first roller to guide the same and reciprocate said plate.

4. A machine of the class described having in combination a rotating circular saw, a plate mounted for reciprocation adjacent thereto and having a transverse slot therein, yielding means for holding said plate normally in its upper position, and a crank carried eccentric dog for moving said plate downwardly with a movement which is slow at starting but which accelerates as the plate approaches its lower position.

5. A machine of the class described having in combination a continuously rotating

