(No Model.)

# J. H. PETERS.

## FORMING MACHINE.

No. 453,657. Patented June 9, 1891.

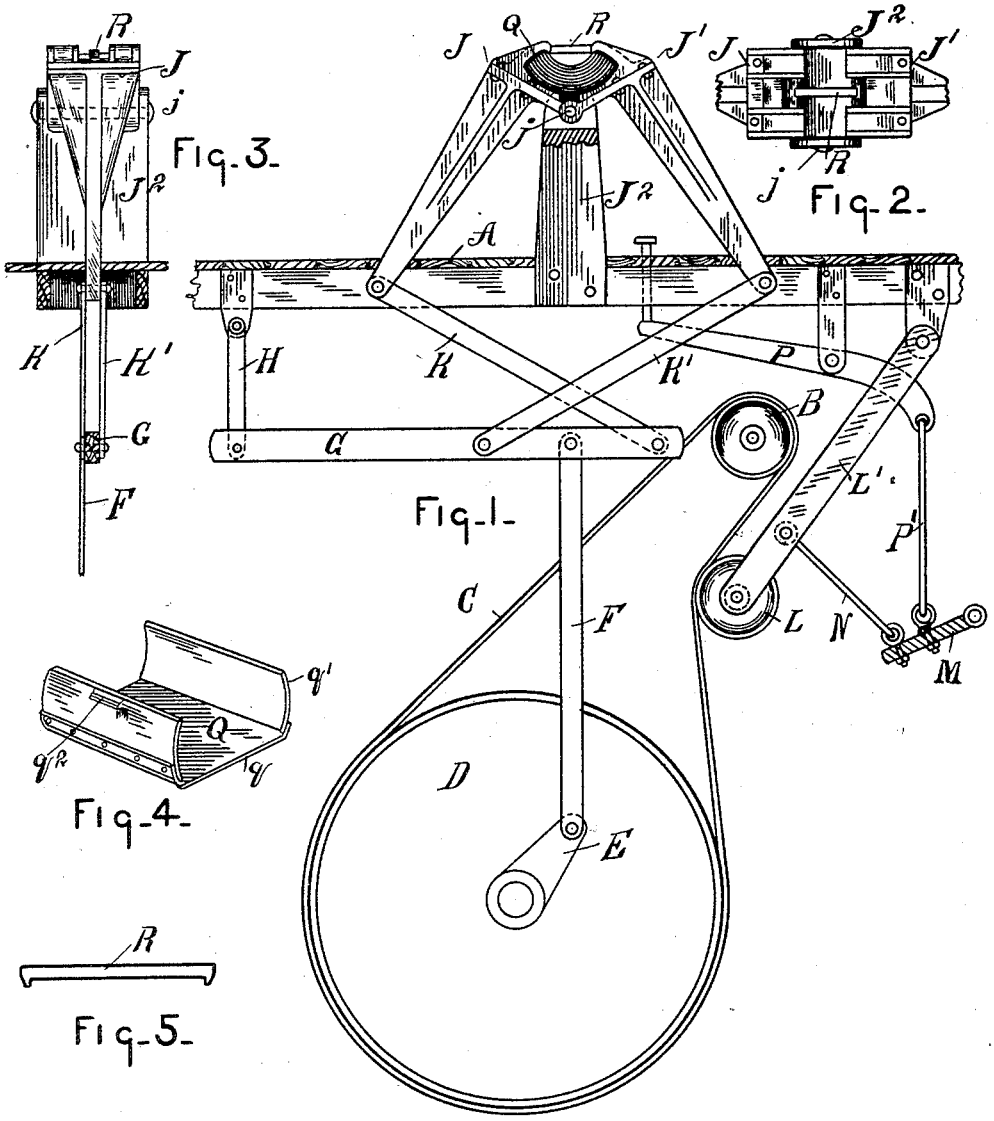


Fig. 3.

Fig. 2.

Fig. 1.

Fig. 4.

Fig. 5.

WITNESSES

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# UNITED STATES PATENT OFFICE.

JAMES H. PETERS, OF COLEMAN, MICHIGAN.

## FORMING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 453,657, dated June 9, 1891.

Application filed October 4, 1890. Serial No. 367,099. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. PETERS, a citizen of the United States, residing at Coleman, county of Midland, State of Michigan, have invented a certain new and useful Improvement in Forming-Machines; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object to produce suitable mechanism whereby the veneers or sheets used in making head-linings for barrels, &c., may be formed or shaped into the desired circular shape, and means whereby they may be held in said circular shape until they have set; and it consists in a combination of devices and appliances hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of the apparatus embodying my invention. Fig. 2 is a plan view of the forming-jaws. Fig. 3 is an edge elevation of the same. Fig. 4 is a perspective view of a holder in which the veneers are placed and by which they are held when being set. Fig. 5 is the clamping bar or rod for holding the former in the setting position.

In carrying out the invention I have shown the machine in connection with the floor of a room, the forming-jaws being located above the floor, while the operating mechanism is below. A represents said floor.

B is a driving-pulley, over which is passed the belt C. The belt is also passed over a suitable drum or pulley D. Upon the shaft of the pulley D is the crank-arm E, connected by the pitman F with the pivoted beam or lever G, the latter suitably hung or pivoted from the floor by the hanger H.

J J′ are the forming-jaws, pivoted at *j* to an upright or standard $J^2$, extending from the floor. The tail ends of these jaws are pivoted to one extremity of the jointed levers or arms K K′, which are pivoted at the opposite extremity to the beam or lever G. Thus the jaws and levers or arms K′ form a joint, whereby a vertical motion of the beam or lever G will operate to open and close the jaws.

L is a suitable tightening-pulley supported by the pivoted arm L′.

M is another pivoted lever engaged by the pitman N to the arm L′.

P is a foot-lever extending above the floor and having its opposite end connected with the arm M by the rod P′. Thus it will be seen that by a pressure of the foot upon the foot-lever P, through the rod P′, arm or lever M, and pitman N, the tightening-pulley L is forced against the belt, and the latter tightened to such an extent that instead of slipping upon the pulley D it will grip the latter and revolve it. This revolves the crank-arm E, and through the pitman F the lever G is moved up and the jaws closed, and the continued revolution of the drum brings the pitman down and opens the jaws.

I will now describe the mechanism for holding veneers after they have been formed. Q is the flexible holder, (shown in detail in Fig. 4,) and is formed with the bottom *q* of spring-steel and the uprights or sides *q′* of stiff steel or other metal. Adjacent to the top upon the outside of each side piece is a ridge or projection $q^2$.

The operation is as follows: The holder Q is placed between the jaws and filled with veneers. The operator then, by pressure upon the foot-lever, forces the jaws to close, thus bending the holder and its contents into the shape shown in Fig. 1. While in this closed position the operator then places the hook or rod R over the ends of the holder, so that it is clamped into its bent position. Then as the jaws open the holder is removed with its contents and set aside until the veneers have properly set. They are then removed to undergo another step in the process of their formation into head-linings.

What I claim is—

1. The combination of a pair of jaws movable to and from each other, a flexible veneer-holder adapted to set between the two jaws, a jointed-lever mechanism for moving the two jaws to and from each other, a crank drum or pulley, a swinging lever connected with the jointed-lever mechanism and with the crank, and means for rotating the crank drum or pulley, substantially as described.

2. The combination of a pair of pivoted swinging jaws, a flexible veneer-holder adapt-

ed to set between the two jaws, a jointed-lever mechanism connected with the two jaws for moving them to and from each other, a crank drum or pulley, a swinging lever connected with the jointed-lever mechanism and with the crank, a drive-pulley, and a belt connection between the drive-pulley and crank drum or pulley for operating the jointed-lever mechanism to open and close the jaws, substantially as described.

3. The combination of a pair of jaws movable to and from each other, a flexible veneer-holder adapted to set between the jaws, a jointed-lever mechanism for opening and closing the jaws, a crank drum or pulley, connections between the crank and the jointed-lever mechanism for operating the latter, a drive-pulley having a belt connection with the crank drum or pulley, a belt-tightening pulley, and a lever mechanism for operating the tightening-pulley to govern the action of the jointed levers, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

JAMES H. PETERS.

Witnesses:

W. H. CHAMBERLIN,

MARION A. REEVE.