

(No Model.)

J. KNOPP.
BASKET WIRING MACHINE.

No. 460,827.

Patented Oct. 6, 1891.

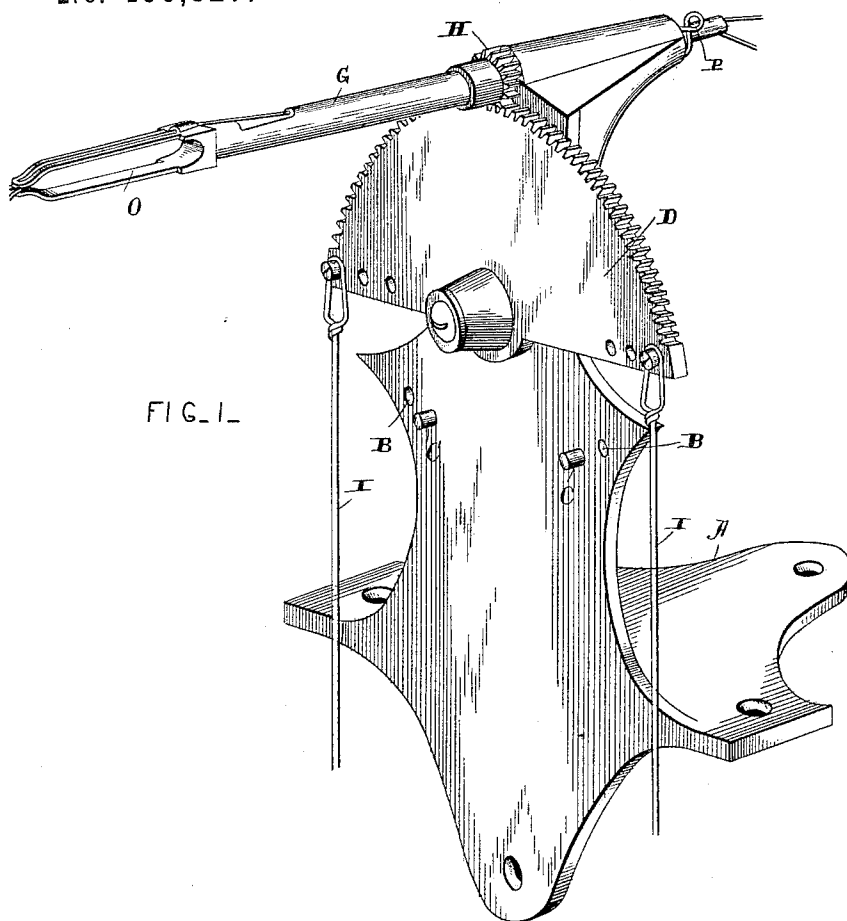
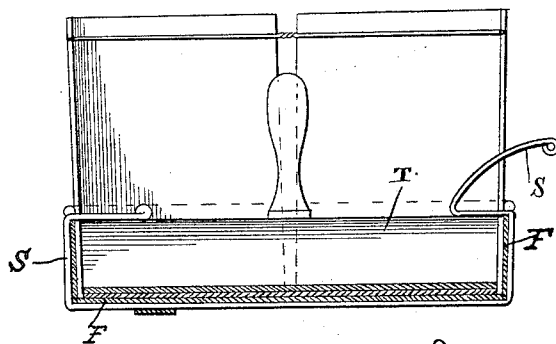


FIG. 1.

FIG. 2.



WITNESSES

Geo. C. Trech.
Roland A. Fitzgerald

INVENTOR

Jacob Knopp
per Lehmann & Pattison
attys

UNITED STATES PATENT OFFICE.

JACOB KNOPP, OF COLUMBIANA, OHIO.

BASKET-WIRING MACHINE.

SPECIFICATION forming part of Letters Patent No. 460,827, dated October 6, 1891.

Application filed May 20, 1891. Serial No. 393,479. (No model.)

To all whom it may concern:

Be it known that I, JACOB KNOPP, of Columbiana, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Basket-Wiring 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in basket-wiring machines.

The object of my invention is to produce a machine which will rapidly wire the loose ends of the basket together, and thus dispense with the use of hoops or bands and tacks, which have heretofore been used for this purpose, and enable a much greater amount of work to be accomplished within a given time.

This invention consists in certain novel features of construction, and in the combination of parts more fully described hereinafter, and particularly pointed out in the claims.

Figure 1 is a perspective of a machine which embodies my invention complete. Fig. 2 is a detail sectional view showing the box-former in connection with a box.

A represents a suitable support or frame, which has a bearing formed in its upper end to receive the revolving needle or shaft, and through which a series of holes B are formed for the purpose of receiving the adjustable stops C, which are passed through them. Journaled upon the side of the frame is a rocking toothed segment or disk D, which meshes with and imparts motion to the needle G through means of the pinion H. To the two opposite corners of the disk D are connected the rods or wires I, which extend down to two separate and independent treadles. (Not here shown.) The disk D may be provided with a series of holes at each corner, if so desired, so that the points of attachment for the rods or wires can be changed at will. The distance that the disk D shall be moved in either direction is regulated by the stops C, against which the lower edge of the disk alternately strikes. If the needle is to be caused to revolve twice, the stops are placed in the outer or upper holes; but if the needle

is to be made to revolve two and one-half times the stops are placed in the inner or lower holes, and thus allow the disk a greater amount of movement.

The needle or shaft is made hollow for the passage of the two wires, and to the outer end of the shaft is secured the fork O, which has its ends brought closely together for the purpose of bringing the two wires close together at that point where they are to be twisted. By bringing the ends of the fork close together the wires are made to fit evenly and closely against opposite sides of the slats of the basket. These wires in being drawn through the needle or shaft and the guides upon the fork have all the kinks or bends straightened or taken out of them, so as to adapt the wires to lay close to and take firm hold upon the sides of the baskets. The shaft or needle is provided with a groove at its rear end, and in this groove a spring catch or stop P of any kind catches for the purpose of preventing the shaft from being removed from its bearing until it is desired to do so. While the stop or spring catches in the groove the shaft has no other than a revolving motion. In order to change the shaft or needle from two to two and one-half revolutions, the stops must be inserted in the inner or lower holes, as above described, and then the disk is turned until it strikes against one of the stops. The spring at the rear of the needle is lifted out of the groove therein, and then the needle is drawn forward until the pinion is out of gear with the toothed disk. When the fork is turned into a horizontal position, the shaft or needle is forced back into position, and the spring is again made to catch in its groove. Then the shaft or needle is threaded with the wires from suitable supply-reels (not shown) and the machine is ready for use.

The baskets are to be formed from two chips or strips of thin wood, which are made to cross each other at right angles. After the two chips have been forced into the metallic former F, which is provided with a spring-holding device S, a block T is forced down upon the chips into the former, and this block is held in position by the spring-holding device. The free ends of both of the chips, being turned outward so as to form the sides of the basket in the well-known manner, are

ready to be wired together. The ends of the wire, where they project beyond the fork, are twisted together by catching hold of them with a pair of nippers, and then the disk is moved by one of the treadles for the purpose of causing the needle or shaft to revolve. The operator takes the former F, holding the slats or chips therein, and keeping down one treadle, shoves the end of one of the slats or chips about one-half inch through the wire-spreading fork, draws the slat endwise through the spring-fingers of the fork, so as to have the rear side of the slat just out of the fork, and then presses the up-treadle, so as to cause the needle or shaft to twist the two wires. Then the end of the next slat is taken into the fork, and so on until all are secured, when the first slat operated upon is taken in a second time and the wire twisted to secure the basket firmly together. When the last twist is made, both wires are taken hold of with the nippers close to the end of the fork, and a full motion is given to the up-treadle, the wires nipped off, and this leaves a twist on both the basket end and the machine end for commencing the next basket.

By means of the machine here shown and described a much larger number of baskets can be made by wiring their ends together than is possible where bands are placed around the baskets and tacked in place in a given time. A forming device for bending the chips or slats is used in this connection because the basket must be held in the hands of the operator while the wiring is being done and the end of each slat must be inserted between the fork before the needle is made to revolve. As rapidly as the end of the first slat is passed through between the ends of the fork the needle or shaft is made to revolve for the purpose of twisting the wires together and the whole basket finished in less

time than the hooks can be arranged in position for the purpose of tacking them.

Having thus described my invention, I claim—

1. In a basket-wiring machine, the combination of the upright supporting-bracket having the horizontal bearing at its upper end, a hollow shaft mounted in said bearing having wire-twisting fingers at one end, a pinion on said shaft, the rocking toothed plate mounted on the side of the bracket beneath and gearing with said pinion, and connections to rock said plate, substantially as shown and described.

2. In a basket-wiring machine, the combination of the supporting-bracket A, having the upper bearing, the shaft mounted in said bearing and provided with the pinion, the wire-twisting fork O on the end of said shaft, composed of the two spring-fingers brought closely together at their outer ends and having guides to hold and twist the wire, the toothed segment mounted on the side of the bracket beneath and meshing with said pinion, and means to rock said segment, substantially as shown and described.

3. In combination, the bracket A, having horizontal bearing, the hollow shaft G, mounted in said bearing and having the twisting-fork O and a pinion, the toothed segment D, mounted on said bracket and gearing with the pinion, the adjustable stops on the face of the bracket for said segment, and operating connections adjustably attached to opposite ends of said segment, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB KNOPP.

Witnesses:

T. C. ROCHE,

F. A. WITT.