

(No Model.)

J. J. GEORGE.

MACHINE FOR TRUSSING OR DRIVING HOOPS OF KEGS OR BARRELS.

No. 565,736.

Patented Aug. 11, 1896.

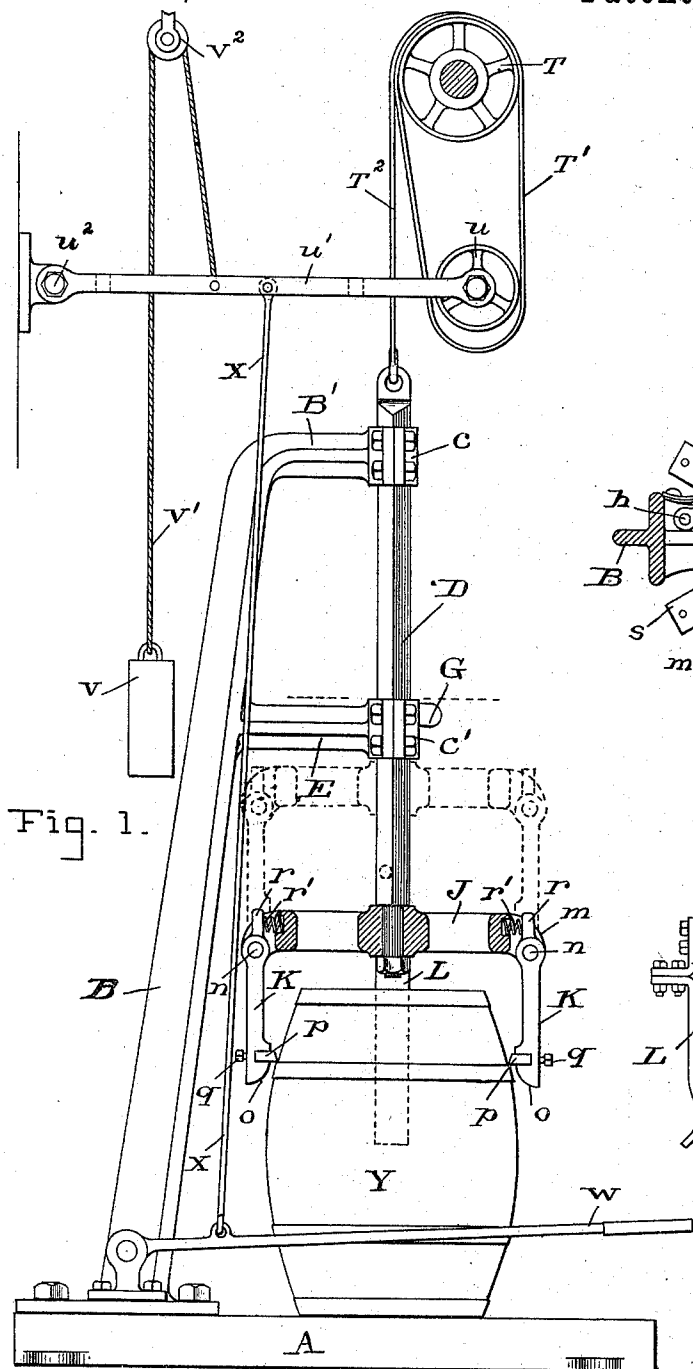


Fig. 1.

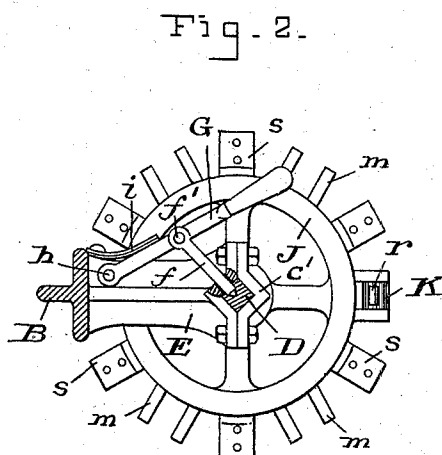


Fig. 2.

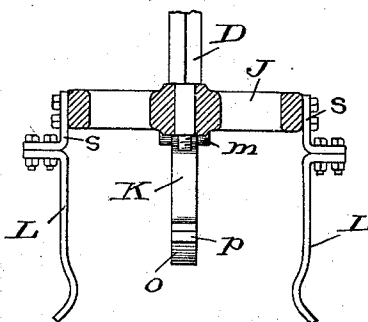


Fig. 3.

WITNESSES :-

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MACHINE FOR TRUSSING OR DRIVING HOOPS OF KEGS OR BARRELS.

SPECIFICATION forming part of Letters Patent No. 565,736, dated August 11, 1896.

Application filed March 26, 1896. Serial No. 584,943. (No model.)

To all whom it may concern:

Be it known that I, JOSIAS J. GEORGE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Machines for Trussing or Driving the Hoops of Kegs or Barrels, of which the following is a specification.

This invention relates to a machine for trussing or driving the hoops of kegs and barrels.

The object of the invention is to provide a simple and cheap machine with few parts, in which the hoop-drivers, in making the down-stroke, operate by gravity.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 shows an elevation of the machine. Fig. 2 shows a plan view of the hoop-driving head and a cross-section of the upright. Fig. 3 is a cross-section of the driver-head.

The letter A designates the base of the machine, and B an upright secured to the base or floor and at its upper end having a lateral arm B'. The end of this arm has a guideway c for a vertical plunger-shaft D. A lower arm E is fixed to the upright B, and has a guideway c', like that on the upper lateral arm, in which the plunger D moves up and down.

The lower arm E has a stop device which holds the plunger-shaft D when the latter is raised. This stop device, in this instance, comprises a bolt f, which moves endwise horizontally in a hole formed in the lower arm. A lever G has one end pivoted to the lower arm at h, and its handle end is movable in a horizontal plane. The bolt f is jointed to the lever at f', and a spring i presses on the outer side of the lever and keeps the bolt normally pressed inward. The inner end of the bolt engages a socket, as indicated in Fig. 2, formed on the vertical side of the plunger-shaft D.

It will be seen that when the plunger-shaft D is at its elevated position this stop-bolt f will hold it. By moving the lever G the stop-bolt will be disengaged, and then the said plunger will drop or move down by its gravity.

The circular head J, which carries the driv-

ers K and spring-guides L, has its center connected to the lower end of the plunger-shaft D. This head has on its rim lugs m, in pairs, each pair of which form part of a joint for the drivers K. Each driver is secured between the two lugs m by a pivot-pin n, and hangs downward. The lower end of each driver has an outward bevel or curve o, and a hoop-catch lip p. This hoop-catch, in the present instance, is a metal block inserted into a suitable socket and projecting laterally. A set-screw q in the back of the driver-arm serves to adjust the hoop-catch block. The driver has at its upper end, above the pivot, an upward-projecting finger r, in position between the two lugs m, and a spring r' is also between the two lugs and bears on said finger and serves to normally keep the lower pendent end of driver pressed slightly inward toward the keg or barrel. The circular head J also has on its rim projecting brackets s, to which are attached by screws the pendent spring-guides L. The guides are longer than the drivers, that is, project down lower. In driving a hoop the guides take precedence, and the guides alternate in position with the drivers. The number of guides and drivers, however, may be varied.

As already indicated in driving a hoop the plunger D, head J, guides L, and drivers K move down by gravity it is now to be explained that these parts are raised by suitable elevating mechanism. This mechanism comprises an overhead shaft and pulley T, to be driven by suitable power, and when this machine is to be operated this shaft and pulley will be continuously running. A belt T' is over this pulley and hangs down, and a strap T² has one end connected with the belt and the other end with the plunger-shaft D. Normally the belt T' hangs loose below a lower pulley u, and at such time the revolving upper pulley T will slip under the loose belt and the latter will not move.

The lower pulley u is carried at the end of an arm u', which is pivoted at u² to the wall or to a post. This arm being pivoted can be raised or lowered, and when lowered the pulley u which it carries tightens the loose belt T', and at once said belt begins to move in the direction to draw up the strap T², and

thereby elevate the plunger and drivers. The pivoted arm w is raised and is normally kept up by a weight v . In this instance a cord v' is attached to the arm and runs over a pulley v^2 above the arm, and then runs down, and the weight v is hung to the cord. The arm w is lowered against the lifting action of the weight by a treadle w , which has a rod or other connection x with the pivoted arm.

From the foregoing description the operation will be readily understood.

The head J and drivers and guides will be held elevated by the stop-bolt f , and the lower pulley u is at rest. A keg or barrel Y whose hoops are to be driven will then be placed in position below the driver-head, and the lever G will be moved to allow the plunger-head, guides, and drivers to descend by gravity and drive a hoop down. To make another down strike, the person's foot will depress the treadle w , and thereupon the drivers will be elevated and the stop-bolt f will retain them up. Then by moving the lever G again the drivers will make another downstroke. As the drivers K are pendent and independently pivoted, and each kept normally pressed slightly inward toward the keg, they will all take effect alike on a hoop without reference to the keg being exactly round. The guides L being longer than the drivers will insure that the keg has the proper central position under the head J .

Having thus described my invention, I claim—

1. In a hoop-driving machine, the combination of a vertically-movable plunger-shaft carrying hoop-drivers; a driving shaft and pulley; a movable pulley; a loose belt over said driving-pulley and movable pulley; a strap connecting between the plunger-shaft and said loose belt; means for shifting said movable pulley and thereby tightening said belt; and a stop device to retain the plunger-shaft when in the elevated position.

2. In a hoop-driving machine, the combination of a plunger-shaft vertically movable in guides; a head on the lower end of said plunger-shaft; hoop-drivers pivoted to the head; a driving shaft and pulley, T ; an arm pivoted and carrying a pulley, u , below the other pulley; a belt, T' , over the driving-pulley and hanging loose under the lower pulley; a strap connecting between the plunger-shaft and said belt; a treadle; a connection between the treadle and pivoted arm; and a stop device to engage the plunger-shaft when up and retain it elevated.

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

JOSIAS J. GEORGE.

Witnesses:

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