

(No Model.)

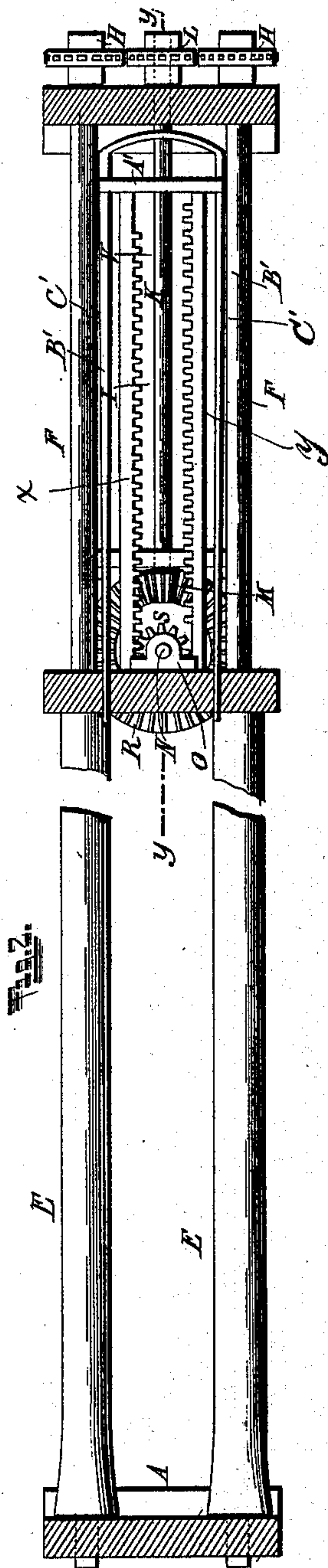
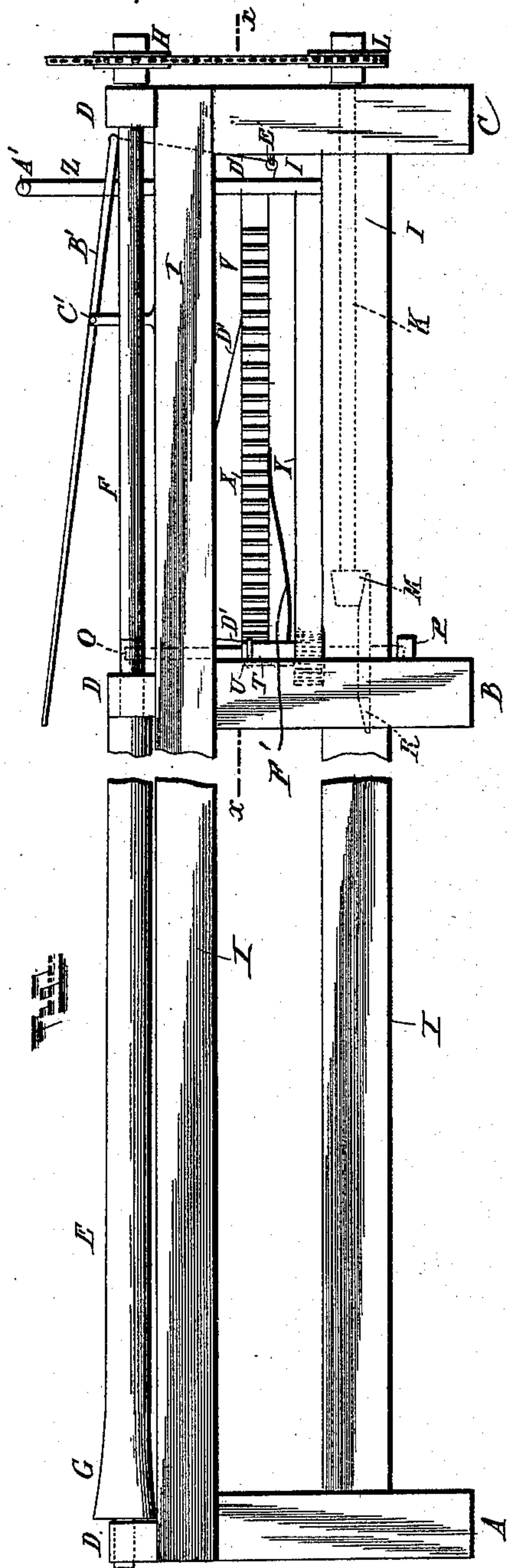
2 Sheets—Sheet 1.

E. J. OTT.

MACHINE FOR PITCHING BARRELS.

No. 413,542.

Patented Oct. 22, 1889.



Witnesses

Wallace Greene
H. J. Rohrer

Inventor

Edward J. Ott

By *his Attorney*

Thayer Surges

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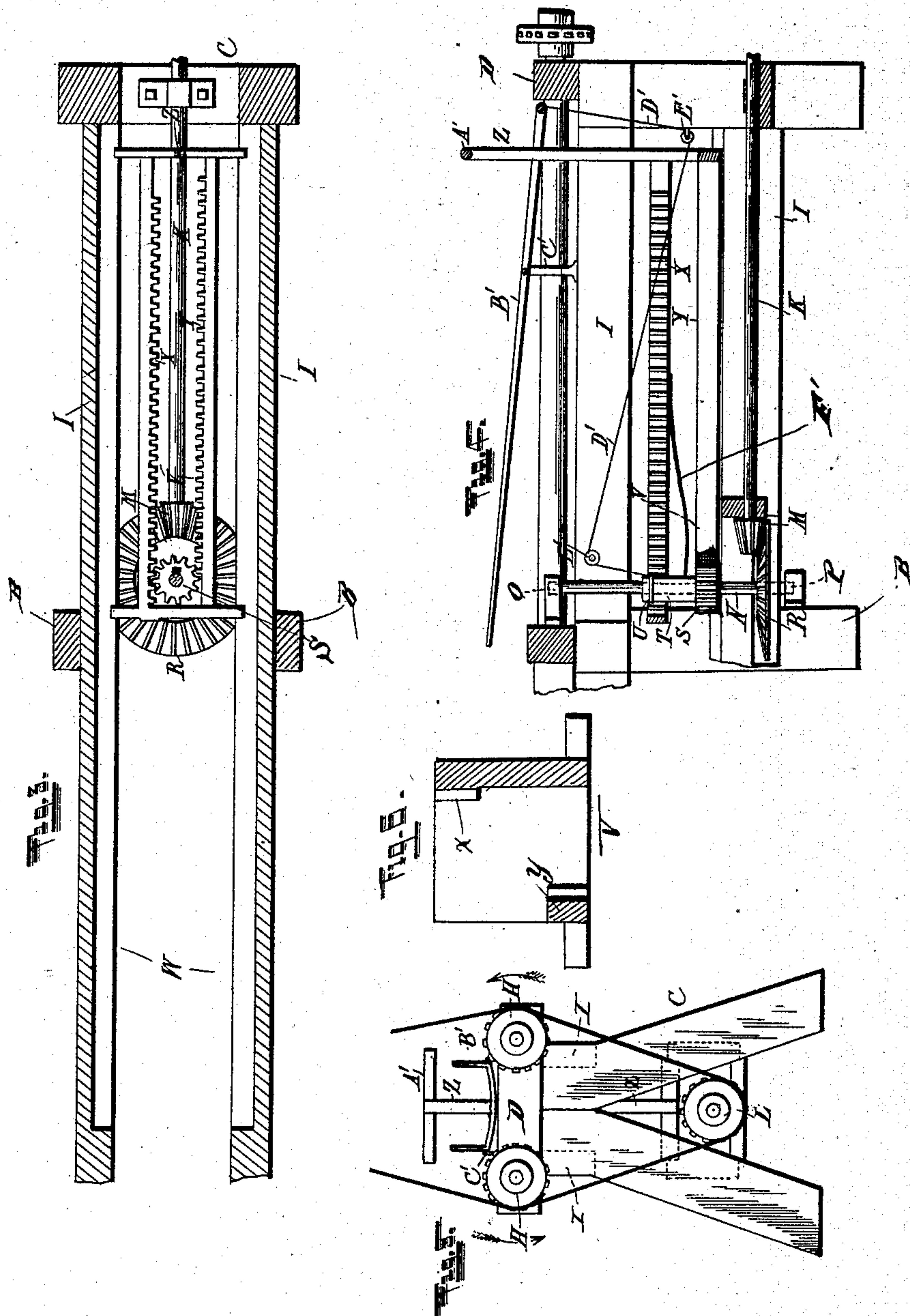
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UNITED STATES PATENT OFFICE.

EDWARD J. OTT, OF NORWALK, OHIO.

MACHINE FOR PITCHING BARRELS.

SPECIFICATION forming part of Letters Patent No. 413,542, dated October 22, 1889.

Application filed October 23, 1888. Serial No. 288,937. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. OTT, a resident of Norwalk, in the county of Huron and State of Ohio, have invented certain new and
5 useful Improvements in Machines for Pitching Barrels; 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
10 to make and use the same.

My invention relates to an improvement in machines for rolling kegs to apply pitch smoothly to the interiors thereof; and it consists in the peculiar construction and combination of devices hereinafter described.
15

In the accompanying drawings, Figure 1 is an elevation of a keg-rolling machine embodying my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a horizontal sectional view taken on the line *x x* of Fig. 1. Fig. 4 is a vertical longitudinal sectional view taken on the line *y y* of Fig. 2. Fig. 5 is an end elevation. Fig. 6 is a transverse sectional view of the traveling frame V.
20

A B C represent supporting-trestles of suitable height, each of which is provided on its upper side with a plate or box D. In the said plates or boxes, near the ends thereof, are journaled a pair of parallel longitudinal
25 rollers E. Those portions of said rollers which are between the trestles B C are reduced in diameter to form spindles or shafts F. The opposite ends of said rollers are enlarged and tapered, as at G. To the reduced
30 ends of the rollers are secured sprocket-wheels H.

I represents a frame of suitable construction, which is arranged under the rollers and connects the trestles A B C. Below the said
35 frame, in suitable bearings with which the same is provided, is journaled a shaft K, which is parallel with the spindles F, and has secured to its outer end a sprocket-wheel L, which is in line with the wheels H. To the
40 inner end of said shaft is attached a beveled pinion M.

N represents a vertical shaft, which is journaled in a bearing O and a bearing P attached to trestle B. To the lower end of the said shaft
45 is keyed a beveled gear-wheel R, which engages the pinion M, and on the upper portion of said shaft is feathered a pinion S, which is there-

by adapted to rotate with the said shaft and to move vertically thereon. On the upper side of the said pinion is formed a projecting
50 hub T, and to the same is swiveled a ring or sleeve U.

V represents a traveling frame, which reciprocates in guides W in the sides of the frame I. The said frame V has rack-bars X
55 Y on opposite sides, which are disposed in different horizontal planes, the rack X being arranged at a suitable height above the rack Y. The said rack-bars are arranged on opposite sides of the pinion S, and said pinion
60 is thereby adapted to engage said racks alternately and move the frame backward and forward, when said pinion is raised and lowered by the means described hereinafter. From the outer end of the frame V rises a
65 standard Z, which has a cross-bar A' at its upper end, said standard being attached to the frame V and adapted to travel therewith.

B' represents a U-shaped yoke, which has its arms fulcrumed on knees or standards C',
70 that project from the upper side of the main frame near one end thereof. The standard Z rises between the said arms and has the cross-bar A' arranged transversely over the same.

D' represents a cord, which has one end attached to the outer end of the yoke and has
75 its opposite end attached to the swiveled ring or sleeve U, and is guided over suitable sheaves or pulleys E'. When the free ends of the yoke-arms B' are elevated, the cord D'
80 is slackened and the pinion S remains near the lower end of the vertical shaft N and in same plane with the rack-bar Y, and when thus arranged the machine is in its initial
85 position.

The operation of my invention is as follows: An endless chain driven by a suitable motor (not shown) engages the wheels H L and rotates the same in the direction indicated by the arrows in Fig. 5, thereby causing the rollers E to rotate in the same direction and at a uniform rate of speed. Inasmuch as the shaft N is geared to the shaft K, the said shaft N is rotated continuously in the same direction. When a sufficient coating of melted pitch has
90 been applied to the interior of a keg or cask in the usual manner, the latter is placed upon the inner end of the yoke B' before the pitch becomes cold, and the weight of the cask causes

that end of the said yoke to descend. The cord D' is thereby tightened and caused to elevate the pinion S until it meshes with the rack X, and the said pinion being rotated by the shaft N causes the frame V to move forward. The standard Z and cross-bar A', attached to said frame, by pushing against one end of the cask moves the latter longitudinally on the arms of the yoke until said cask clears the said arms and is supported upon the rollers E, when the rotation of said rollers imparts rotary motion to the cask, and as the latter revolves axially the melted pitch therein is kept applied evenly and smoothly to all parts of the interior of the cask until the pitch is cool and hard, thus preventing the pitch from accumulating in one side of the cask, as will be readily understood. As soon as the cask is discharged from the yoke B', the pinion S drops by its own gravity and becomes engaged with the rack-bar Y, returns the yoke to its initial inclined position, and returns the frame V to its initial position, (illustrated in Figs. 1, 2, and 3,) when another cask is placed on the yoke-arms, and the operation before described is repeated. A number of kegs are thus kept in rotation by the rollers simultaneously, and as each keg is moved forward on the yoke by the cross-bar of the traveling frame all the kegs on the rollers are moved forward thereby, and the keg nearest the outer ends of the rollers is thus automatically discharged from the same. The length of the rollers is such that while a keg is being rotated and moved longitudinally thereon the pitch within the same has time to become cool and hard before the keg is discharged.

In order to prevent the possibility of the pinion S becoming lodged on the shaft N, I provide the reciprocating frame V with an inclined cam-arm F', which engages the upper side of the said pinion, as shown, and by traveling with the frame moves from the pinion and frees it when the frame moves forward and engages and depresses the pinion when the frame reaches the rearward limit of its movement.

Having thus described my invention, I claim—

1. The combination, in a machine for rolling kegs, of the rollers E, the shaft N, means, substantially as specified, to rotate the said shaft and rollers, the pinion S, feathered to shaft N and vertically movable thereon, the yoke B', connected to the pinion, and the reciprocating frame V, having the rack-bars arranged in different planes and adapted to alternately engage the pinion, said frame having the push-bar or standard, for the purpose set forth, substantially as described.

2. The combination, with the rollers E, of the pivoted yoke B', the reciprocating frame V, having the rack-bars in different planes, the revolving shaft N, the pinion feathered to and vertically movable on said shaft and adapted to alternately engage the rack-bars, the cord connecting the said pinion to the pivoted yoke, and the cam on the frame V to depress the said pinion, substantially as described.

3. In a machine for rolling kegs, the combination of the rollers, the yoke, and the traveling frame having the push rod or standard, substantially as described.

4. In a machine for rolling kegs, the combination of the rollers E, having the enlarged, swelled, or flared outer ends G, the yoke, and the traveling frame having the push-rod or standard, substantially as described.

5. In a machine for rolling kegs, the combination, with the continuously-revolving rollers and shaft N, of the traveling frame having the push-bar or standard, the pivoted yoke, and the pinion feathered on the shaft, adapted to operate the traveling frame, and the connections between said pinion and said yoke, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EDWARD J. OTT.

Witnesses:

GEO. S. STEWART,
G. F. STEWART.