

(No Model.)

J. J. MOGER.

HOOP DRESSING MACHINE.

No. 378,454.

Patented Feb. 28, 1888.

Fig. 1.

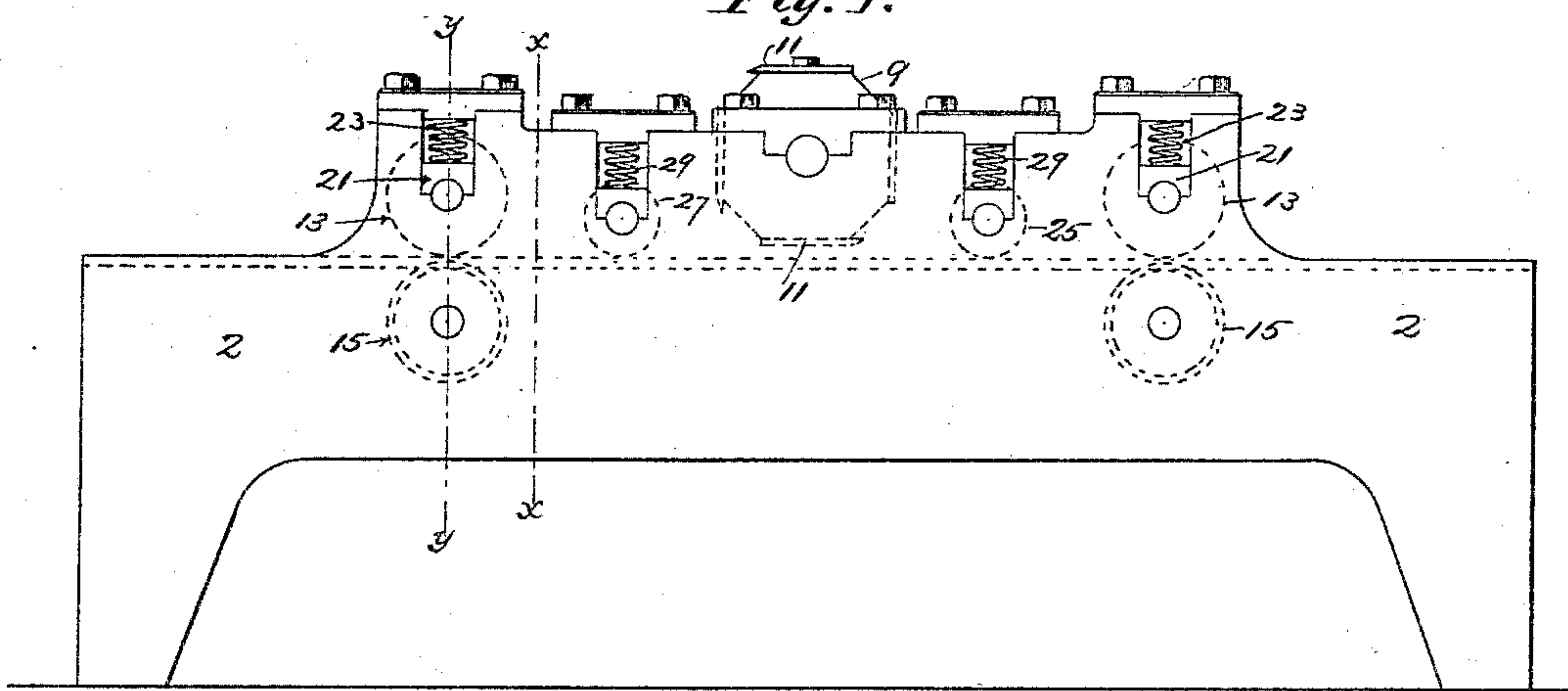


Fig. 2.

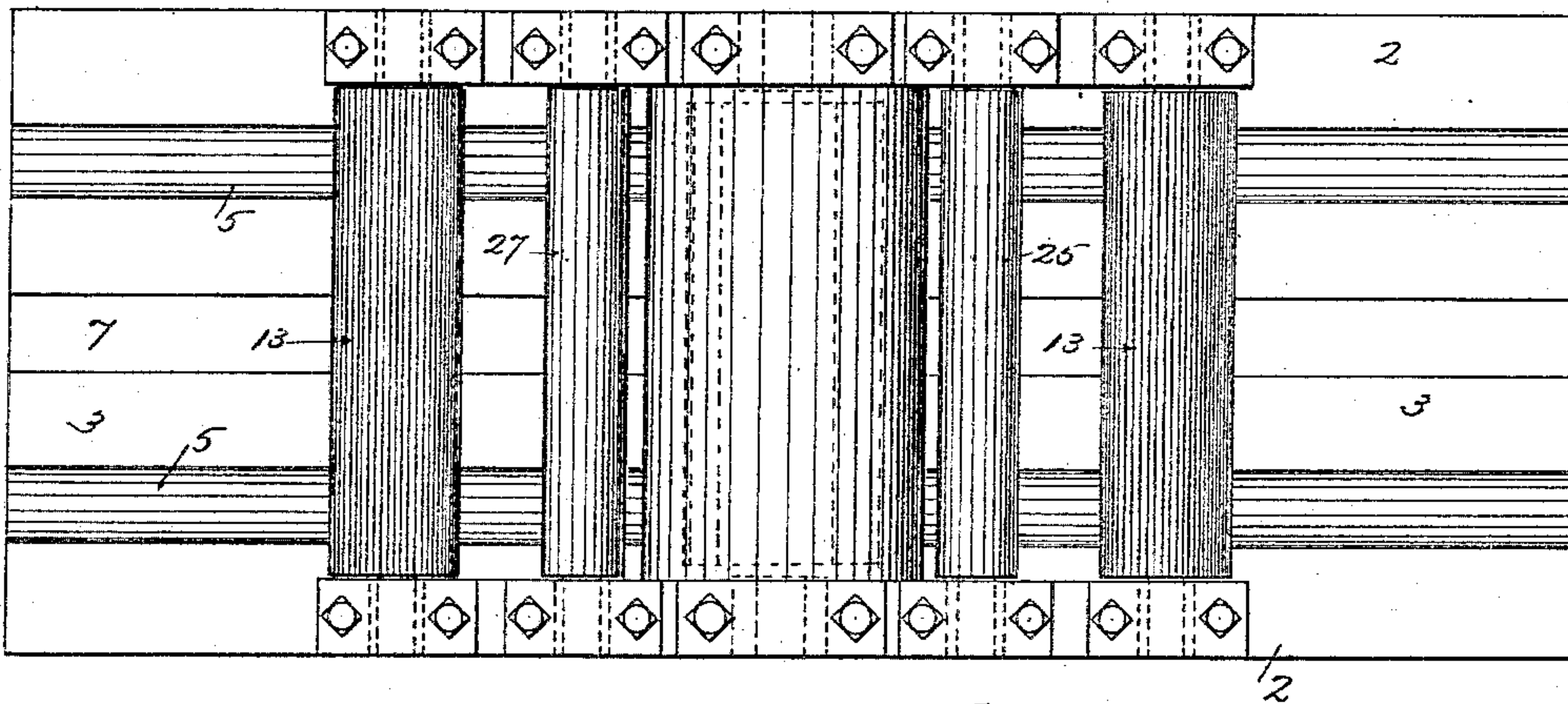


Fig. 3.

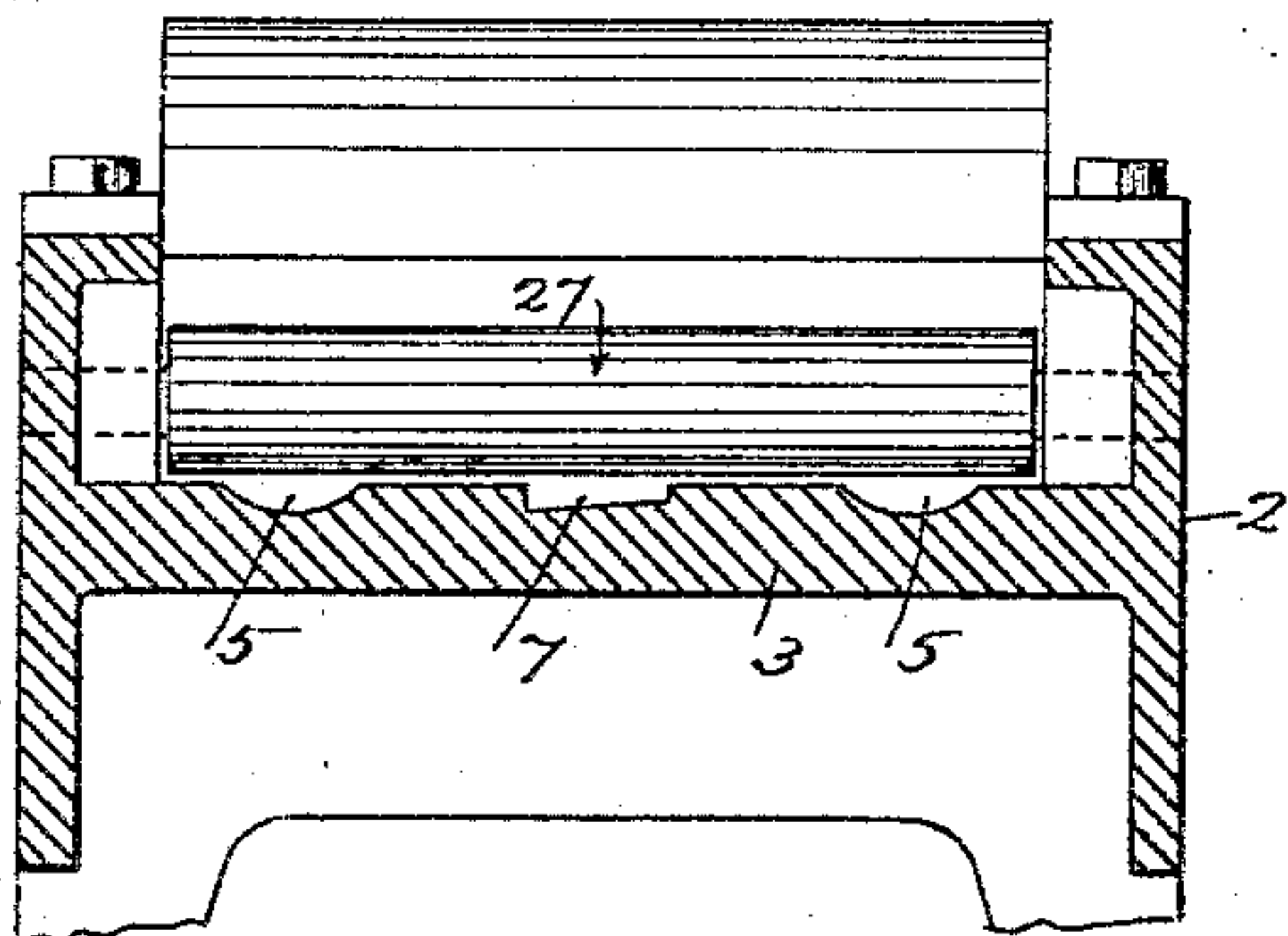


Fig. 5.

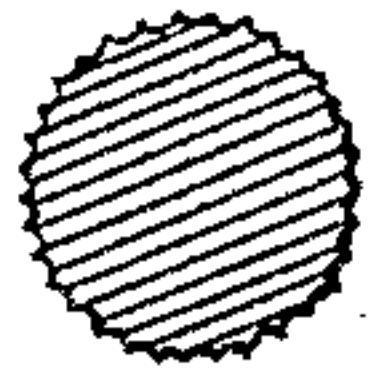
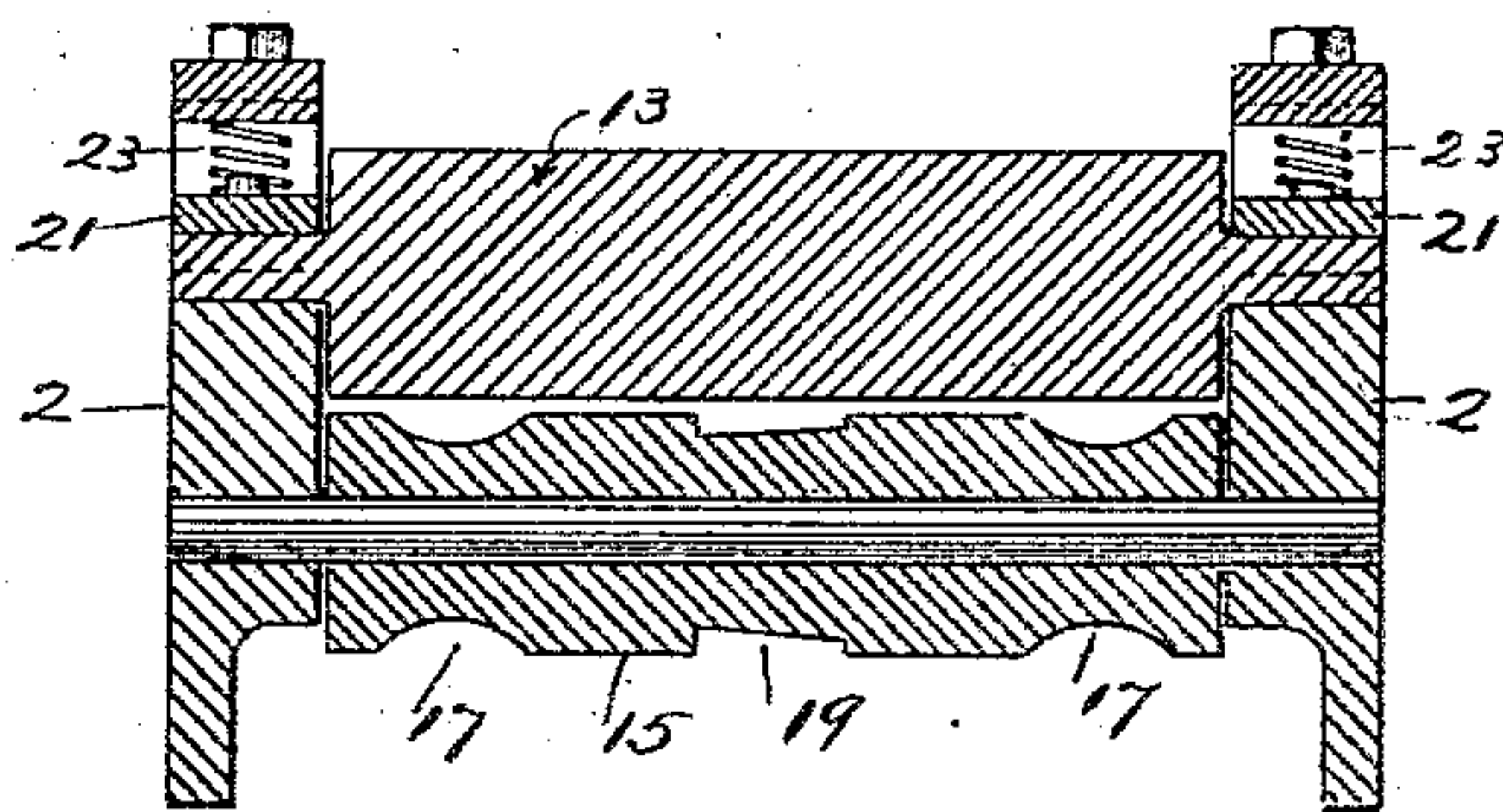


Fig. 4.



Witnesses

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Inventor.

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UNITED STATES PATENT OFFICE.

JOHN J. MOGER, OF GREEN BAY, WISCONSIN, ASSIGNOR OF ONE-HALF TO
PETER B. WARREN, OF MINNEAPOLIS, MINNESOTA.

HOOP-DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 378,454, dated February 28, 1888.

Application filed November 23, 1886. Serial No. 219,571. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. MOGER, of Green Bay, in the county of Brown and State of Wisconsin, have invented certain new and useful Improvements in Hoop-Dressing Machines, of which the following is a specification.

This invention relates to improvements in machines designed for dressing barrel-hoops; and the objects I have in view are to provide a simple and inexpensive machine by which either half-oval or flat hoops may be readily dressed.

The invention consists in the construction and combination hereinafter described, and pointed out in the claim.

In the drawings, Figure 1 is a side elevation of the machine. Fig. 2 is a plan of the same. Fig. 3 is a transverse vertical section on line X X of Fig. 1. Fig. 4 is a similar section on line Y Y of Fig. 1. Fig. 5 is a cross-section through one of the feed-rolls.

In the drawings, 2 represents the frame of the machine, which may be of any suitable size and construction. This frame supports a horizontal bed-plate, 3, which extends the full length of the machine, and is provided with any desired number of half-oval grooves 5, that extend longitudinally in its upper surface. The bed-plate is also preferably provided with a groove, 7, that is substantially rectangular in cross-section, but is slightly deeper at one side than at the other. A cylinder, 9, provided with suitable knives, 11, is mounted in boxes in the frame of the machine and extends transversely across the bed-plate. This cylinder is driven by any suitable means.

The machine is provided near each end of the bed-plate with the upper feed-roll, 13, and the lower feed-roll, 15. The upper feed-rolls are provided with longitudinal grooves or serrations that are sufficiently sharp to take hold of the flat surface of the hoop and carry it along in the machine. The under feed-rolls are each provided with curved annular grooves 17 and with a flat groove, 19, that are opposite the correspondingly-shaped grooves in the bed-plate. The boxes 21, in which the feed-rolls 13 are mounted, are provided with suitable springs, 23, which allow the rolls to yield and

hold them upon the hoops with a yielding pressure.

Upon each side of the knife-cylinder is a guide-roll, 25 and 27, each of which is mounted in suitable bearings in the frame of the machine. The boxes in which these rolls are mounted are each provided with springs 29, which hold the rolls against the bed-plate with a yielding pressure.

The feed-rolls 13 and 15 are driven by any suitable means and at any desired speed.

The operation of the machine is as follows: The half round or oval hoops are first made by splitting the round hoop-poles lengthwise. The ends of the hoops are then laid in the grooves 5 in the bed-plate, with the flat side, or that which forms the inside of the finished hoop, uppermost. The hoop is then pushed along in the groove until it passes between the grooved feed-roll 15 and the serrated feed-roll 13. It is grasped between these rolls and pushed along in the groove in the bed-plate. The shape of the rolls prevents the hoop from turning, and it is carried through the machine with its flat side uppermost. The hoop first passes under the guide-roll 25, then under the knife-cylinder 9, then under the guide-roll 27, and is finally grasped by the feed-rolls at the other end of the machine, which draw it along until it has passed completely through the machine. The guide-roll 25 prevents the end of the hoop from flying up when it is struck by the knives, and the roll 27 keeps the end from curling up after it has passed under the knives and holds the hoop closely in the groove in the bed-plate until it is caught by the feed-rolls.

The groove 7 in the bed-plate, which is designed for flat hoops, is slightly deeper at one side than at the other, for the purpose of giving the hoops a slight bevel, and thus rendering them more nicely adjustable to the swell of the barrel or cask on which they are to be used.

The advantage of a yielding revolving pressure between the front feed-rolls and knife-cylinder is, that when the end of the hoop turns up after leaving the feed-rolls, as is frequently the case, the revolving roll will strike the end of the hoop, whether it be high or low, a down-

ward and forward or moving blow, so as not only to carry it back to the bed of the machine, but also press it forward to the knife-cylinder to be trimmed. It also holds the hoop closer to the bed, so that it is caught to better advantage by the knives, and, further, it permits the face of the bed to be made in an unbroken surface, so that no obstruction will exist against which the end of the hoop might strike.

10 The bed-plate may be provided with any desired number of grooves, which may be of any suitable size and shape.

The upper feed-roll at the back end of the machine may be smooth, if preferred, so as not to mark the finished surface of the hoops.

15 I claim as my invention and desire to secure by Letters Patent—

In a hoop-dressing machine, the combination of the knife-cylinder 11, the two sets of feed-rolls 13 and 15 at opposite ends of the machine, the lower roll of each being formed with grooves corresponding in shape to the

exterior of the hoops to be dressed, the revolving yielding pressure-rolls 25 and 27, located on opposite sides of said cylinder, between it and the feed-rolls, one of which pressure-rolls is adapted to strike the end of the moving hoop and exert a moving and yielding pressure thereon to press it toward the cutting-cylinder after leaving the front feed-rolls, and the bed-plate 3, formed with grooves corresponding to those in the feed-rolls, and extended from one set of feed-rolls to the other and under the pressure-rolls and knife-cylinder to form an unbroken grooved bed under the pressure-rolls and between the knife-cylinder and feed-rolls, substantially as described.

35 In testimony whereof I have hereunto set my hand this 11th day of November, 1886.

JOHN J. MOGER.

In presence of—

VAN BUREN BROMLEY,
W. T. MOGER.

It is hereby certified that the name of the assignee in Letters Patent No. 378,454 granted February 28, 1888, upon the application of John J. Moger, of Green Bay, Wisconsin, for an improvement in "Hoop-Dressing Machines," was erroneously written and printed "Peter B. Warren;" that said name should have been written and printed *Peter B. Warner*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 10th day of April, A. D. 1888.

[SEAL.]

D. L. HAWKINS,
Assistant Secretary of the Interior.

Countersigned :

BENTON J. HALL,
Commissioner of Patents.