

(No Model.)

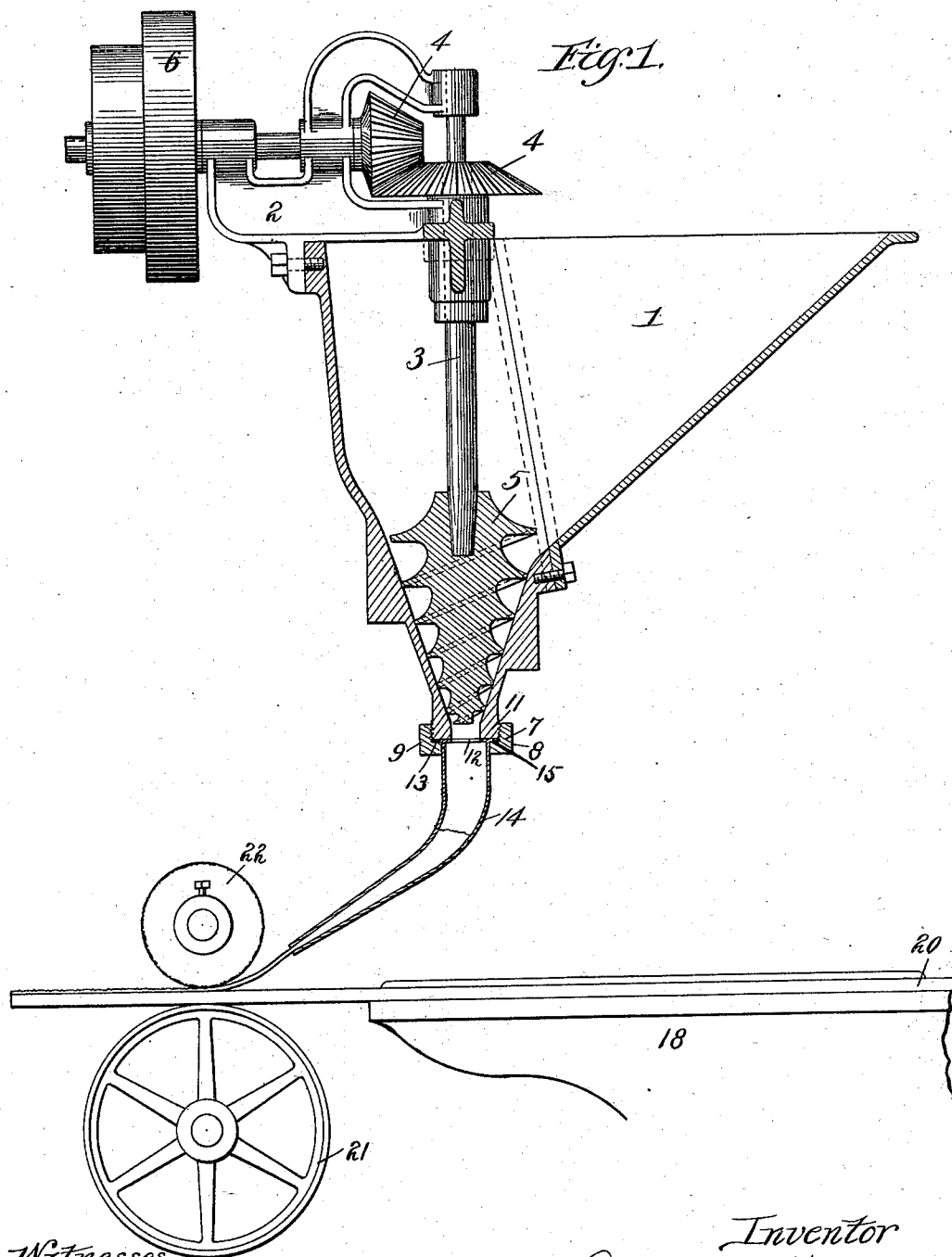
3 Sheets—Sheet 1.

A. SPARR.

MACHINE FOR COATING PICTURE MOLDINGS.

No. 559,466.

Patented May 5, 1896.



Witnesses.

Wm. M. Rhine

Wm. J. Huming

Inventor

Augustus Spar

by

Benn. Adams, Pickard & Jackson

Attys.

(No Model.)

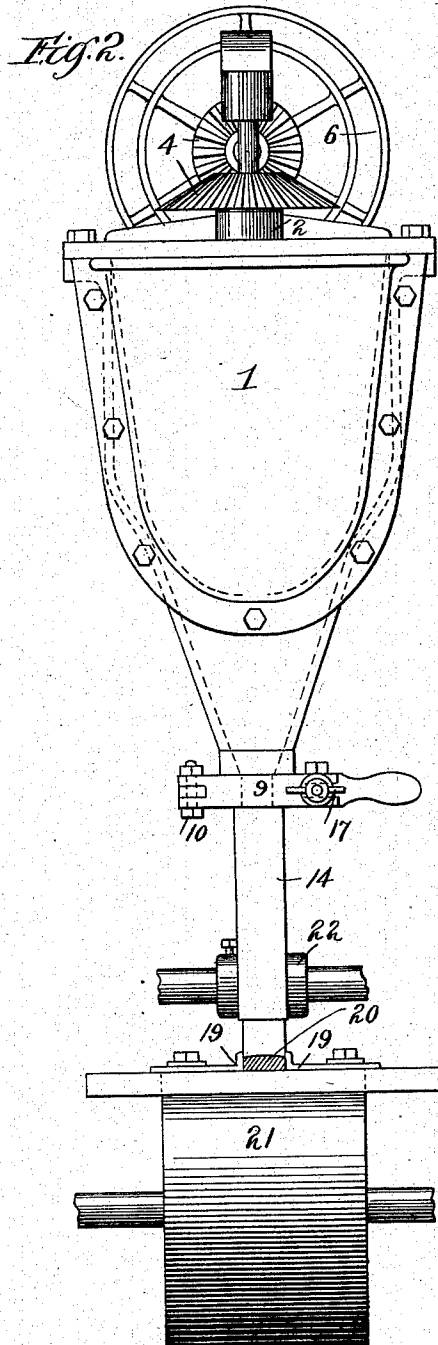
3 Sheets—Sheet 2.

A. SPARR.

MACHINE FOR COATING PICTURE MOLDINGS.

No. 559,466.

Patented May 5, 1896.



Witnesses.

Wm. M. Rheem
Wm. F. Huming

Inventor.

Augustus Sparr
by
Benn. Adams, Pickens & Jackson
Attys

(No Model.)

3 Sheets—Sheet 3.

A. SPARR.

MACHINE FOR COATING PICTURE MOLDINGS.

No. 559,466.

Patented May 5, 1896.

Fig. 3.

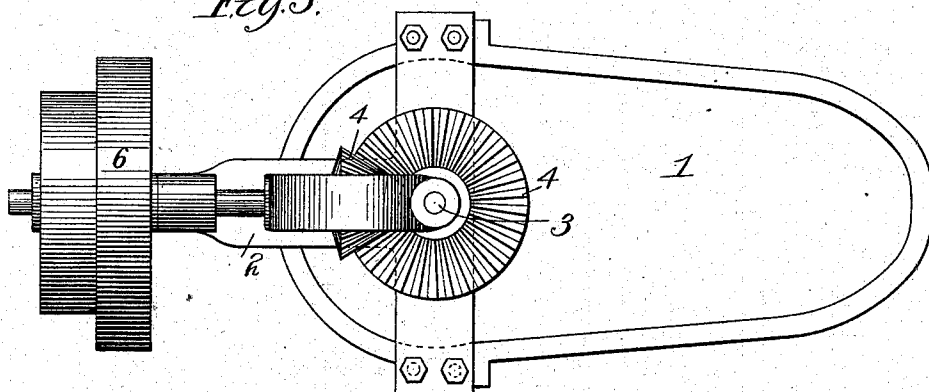


Fig. 4.

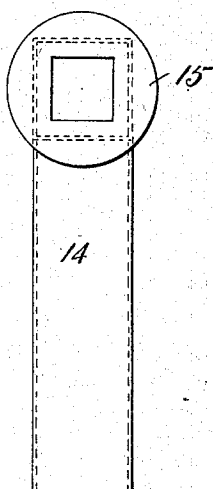


Fig. 5.

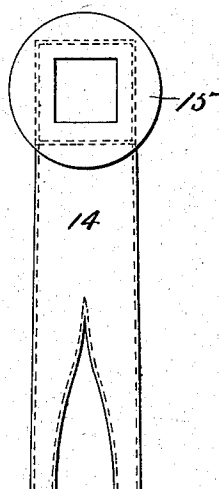
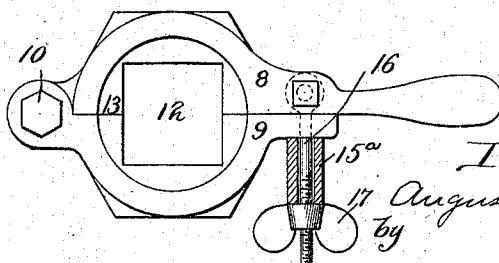


Fig. 6.



Witnesses.

Wm. M. Schemm

Wm. L. Humm

Inventor

Augustus Sparr

by

Brnd. Adams, Pickens & Jackson

Attys

UNITED STATES PATENT OFFICE.

AUGUSTUS SPARR, OF CHICAGO, ILLINOIS.

MACHINE FOR COATING PICTURE-MOLDINGS.

SPECIFICATION forming part of Letters Patent No. 559,466, dated May 5, 1896.

Application filed April 30, 1894. Serial No. 509,509. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS SPARR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Coating Picture-Moldings, of which the following is a specification, reference being had to the accompanying drawings, in which—

10 Figure 1 is a longitudinal vertical section. Fig. 2 is an end view seen from the right of Fig. 1. Fig. 3 is a top or plan view. Fig. 4 is an enlarged detail, being a top or plan view of the nozzle. Fig. 5 is an enlarged detail, 15 being a top or plan view of a modification of the nozzle, showing a different shape of the same. Fig. 6 is a top or plan view of the clamp by which the nozzle is secured to the hopper.

20 The object of my invention is to provide new and improved mechanism for coating picture-moldings and similar articles with putty or other plastic material. It is usual in the manufacture of picture-moldings to coat the 25 molding with a strip or band of putty or similar plastic substance, which is pressed upon the molding so that it adheres thereto. The molding is then passed under a wheel the surface of which is embossed with the design 30 which it is desired to impress upon the putty. Heretofore it has been customary to coat the molding with the putty strip by hand, although some machines have been devised for doing it automatically. In general these machines have not worked well in practice, and it is the object of my invention to provide a machine which will overcome the defects of 35 previous machines, which will gradually compact the putty or other plastic material as it passes through the machine into a condition in which it will be adapted to be pressed upon the molding and given the desired impression, which will form it into a strip of suitable width and thickness to be pressed upon 40 the molding and deliver the strip upon the molding as it is passed through the machine in proper condition and in a suitable manner to be pressed upon the molding and given the desired configuration, and by which picture-molding may be rapidly and conveniently 45 50

made. I accomplish these objects as herein-after specified and as illustrated in the drawings.

That which I regard as new will be set forth in the claims.

In the drawings, 1 indicates a hopper which is of suitable size and constructed of any suitable material.

2 indicates a bracket which is mounted on the top of the hopper.

3 indicates a shaft which is journaled in the bracket 2 and extends downward into the hopper 1, being driven by suitable gearing 4. The lower portion of the hopper 1 is cone-shaped, as is best shown in Fig. 1, and is provided with an orifice of suitable size at the 65 bottom of the cone-shaped portion.

5 indicates a conical screw which is keyed upon the lower end of the shaft 3, so as to rotate therewith.

6 indicates driving-belts by which the gearing 4 is rotated.

The conical screw 5 is of such size and shape as to fit closely within the conical bottom of the hopper 1, so that the edges of the screw-threads come in contact with the inside surface of the conical bottom of the hopper and bear against it as the screw is rotated. The pitch of the threads—that is to say, the distance between the threads measured on a line parallel to the axis of the screw—diminishes from the top to the bottom in order that the plastic material may be compacted, as hereinafter described. The rate at which the pitch should diminish must be in each case 75 determined by experience. With a screw having the number of threads shown in Fig. 1 I have found that a ratio of two and a half between the two upper threads to two between the lower two is efficient.

7 indicates a clamp which is mounted upon the bottom of the hopper 1, as is best shown in Fig. 1. The construction of the clamp is shown in Fig. 6. It is formed of two parts 8 9, which are hinged together by a pivot 10. Each of the arms 8 9 is provided with a semi-circular recess which is screw-threaded, which recesses are so arranged that when the arms 8 9 are brought together a circular recess is formed adapted to fit over the screw-threaded 100

end 11 of the conical bottom of the hopper 1. The bottom of the recess in the clamp is cut away, so that when the two portions are brought together there will be a rectangular opening 12, surrounded by a shoulder 13.

14 indicates a bent nozzle which is provided at its top with a circular plate 15 secured thereto and adapted to rest within the circular recess in the clamp 7, the plate 15 resting upon the shoulder 13. The top of the nozzle is rectangular in cross-section and adapted to fit within the rectangular opening 12 in the clamp 7. The lower portion of the nozzle 14 is flattened, as is best shown in Fig. 1, so that the opening at the lower end thereof may be of a width and thickness suitable to the work which is to be done, and which will depend, of course, upon the width and shape of the molding which it is desired to cover with putty and upon the character of the impression which it is desired to form upon the putty. The nozzles will be varied in shape to conform to the work in hand, and one such variation I have shown in Fig. 5, where the nozzle is divided at its lower end into two arms, so that the putty may be divided into two strips and laid upon the molding.

15^a indicates a short tube which is secured to the arm 9 of the clamp 7.

16 indicates a pin which is pivoted upon the arm 8 in such a position as to pass through the tube 15^a. The pin 16 is screw-threaded upon its outer end, and is provided with a thumb-nut 17, which bears against the outer end of the tube 15^a. When it is desired to change the nozzle, the thumb-nut 17 is loosened and the clamp 7 opened, when it may be removed from the lower end of the hopper 1, the nozzle taken out, and another nozzle inserted. The clamp 7, with the nozzle, is then placed in position upon the neck at the bottom of the hopper and clamped together, so that the screw-threads in the clamp engage with the screw-threads on the neck at the bottom of the hopper, the thumb-screw 17 being suitably tightened. The clamp may then be firmly adjusted in position by screwing it up upon the screw-threads on the bottom of the neck 11. The lower end of the nozzle 14 is bent so that when the nozzle is in position it extends forward and downward at a suitable angle for delivering the putty upon the picture-molding.

18 indicates a table, upon the top of which are mounted two adjustable guides 19, which are adapted to form a guide through which the picture-molding 20 passes. The guides being of the usual form it is not necessary to describe them fully here. They are so arranged upon the table that when the picture-molding 20 is passed between them it comes directly under the lower end of the nozzle 14.

21 indicates a drum which supports the molding 20 as it is moved under the nozzle.

22 indicates a wheel, the outer surface of which is embossed with the pattern which it is

desired to impart to the picture-molding, and which is of the usual form and construction.

The operation of my device is as follows: The putty or other plastic material is fed into the hopper 1. As the screw 5 is rotated the putty or other plastic material is carried downward by the operation of the threads of the conical screw. Owing to the shape of the screw the plastic material is gathered between the upper threads and forced downward. Since the threads of the screw bear closely against the inside surface of the conical bottom, the gradually-diminishing pitch of the threads causes the plastic material to be gradually compressed as it descends until, as it passes away from the screw, it is in a suitable condition to be pressed upon the molding and given the desired impression. The putty then passes downward through the opening in the neck of the hopper, and through the nozzle 14 in a compacted condition, and passes out of the lower end of the nozzle in the form of a strip of suitable width and thickness for coating the molding, as may be desired. The molding is moved along between the guides 19 under the stream of putty, its forward end resting upon the drum 21 and passing between said drum and the embossing-wheel 22. By the coaction of the embossing-wheel 22 and drum 21 the strip of putty is pressed upon the molding 20 and given the desired configuration.

That which I claim as my invention and desire to secure by Letters Patent is—

1. The combination with a hopper adapted to contain plastic material and having a conical bottom with an opening at its lower end, a conical screw whose threads gradually diminish in pitch toward its lower end, adapted to fit within said conical bottom, and means for rotating said screw, of a nozzle removably clamped upon said hopper at said opening and adapted to form said plastic material into a strip, guides adapted to slidably support a strip of molding, and mechanism adapted to press the strip of plastic material issuing from said nozzle upon said molding and emboss a pattern thereupon, substantially as described.

2. The combination with a hopper adapted to contain plastic material and having a conical bottom with an opening at its lower end, a conical screw whose threads gradually diminish in pitch toward its lower end, adapted to fit within said conical bottom, and means for rotating said screw, of a nozzle removably clamped upon said hopper at said opening and adapted to form said plastic material into a strip, and mechanism adapted to press the strip of plastic material issuing from said nozzle upon a molding and emboss a pattern thereupon, substantially as described.

AUGUSTUS SPARR.

Witnesses:

NELLIE MCKIBBEN,
RALPH VAN DYKE.