

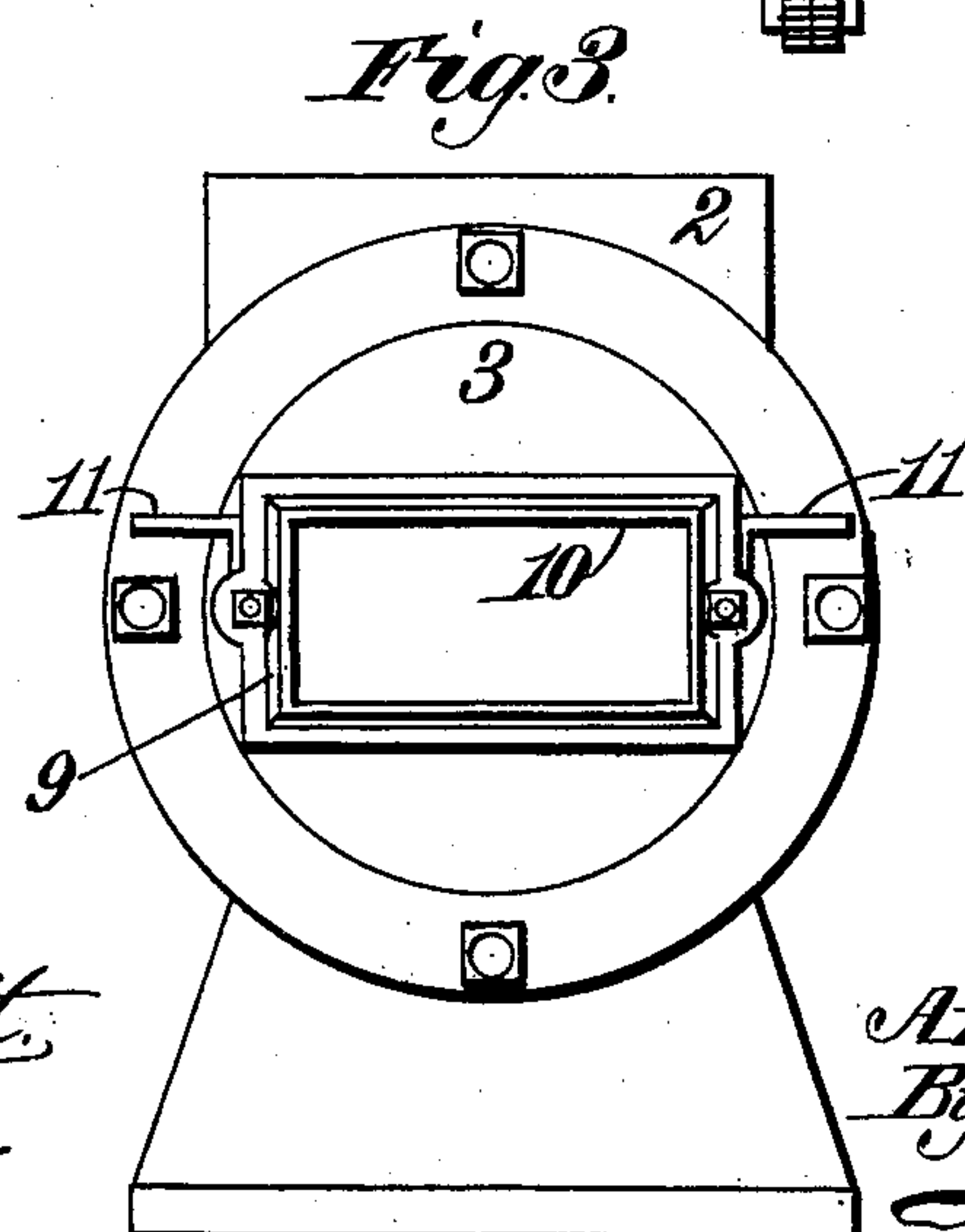
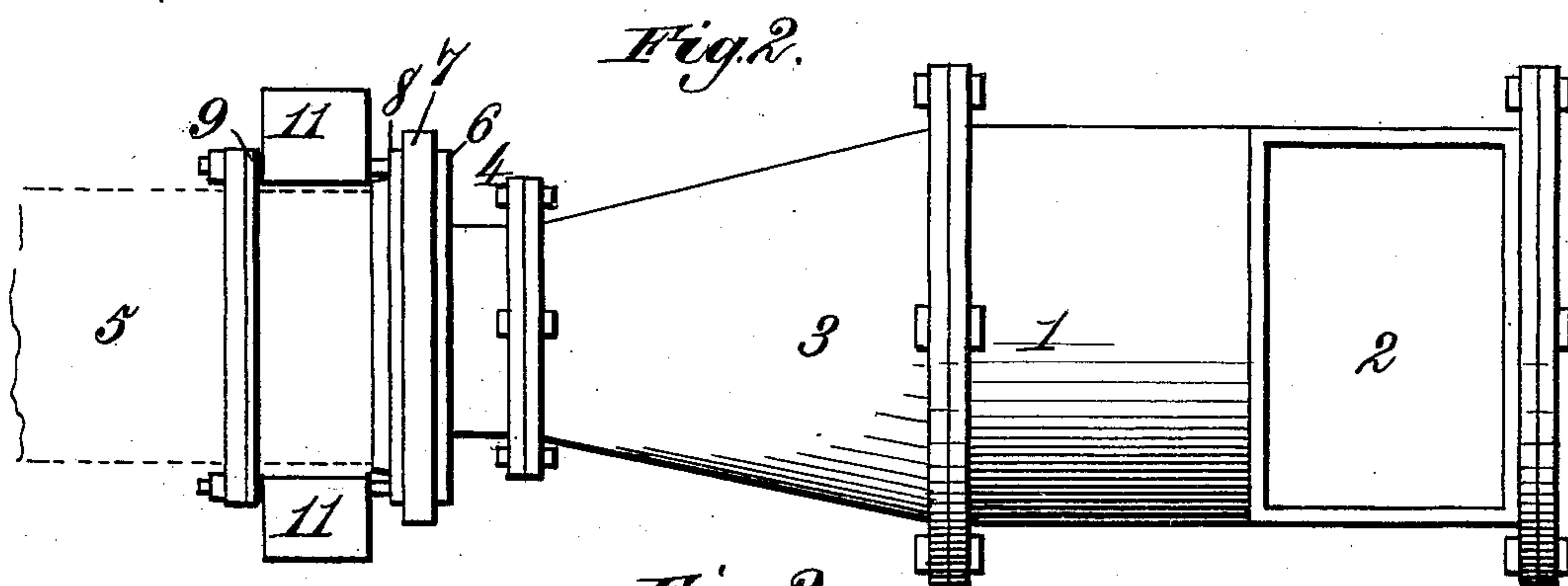
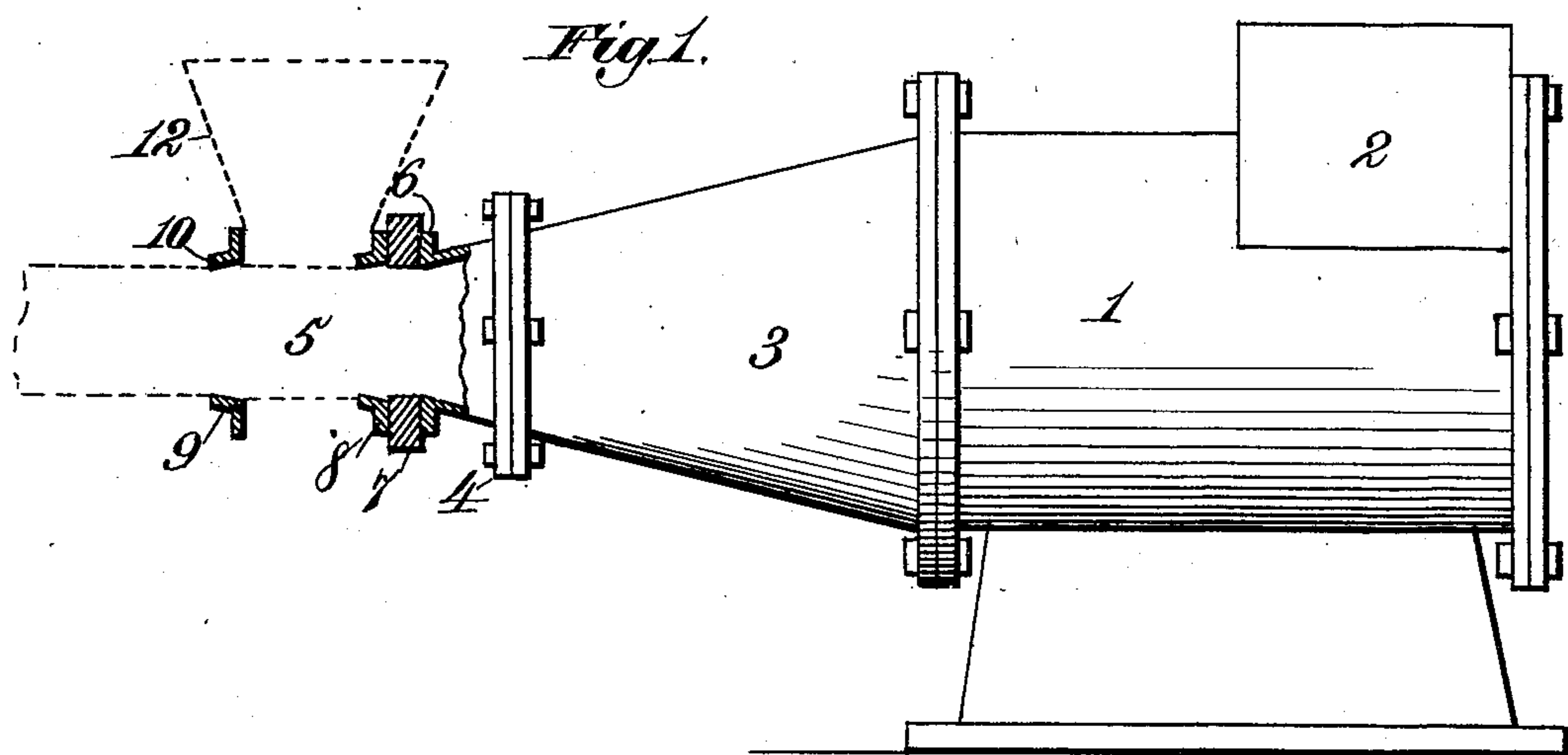
No. 685,410.

Patented Oct. 29, 1901.

A. RAMSAY.
APPARATUS FOR VENEERING BRICKS.

(Application filed Dec. 7, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR VENEERING BRICKS.

SPECIFICATION forming part of Letters Patent No. 685,410, dated October 29, 1901.

Application filed December 7, 1900. Serial No. 39,077. (No model.)

To all whom it may concern:

Be it known that I, ANDREW RAMSAY, a subject of the Queen of Great Britain, (but having declared my intention of becoming a citizen of the United States,) residing at Mount Savage, in the county of Allegany and State of Maryland, have invented new and useful Improvements in Apparatus for Veneering Bricks, of which the following is a specification.

My invention relates to apparatus for veneering, coating, or slipping brick, tile, or other clay articles, the object of the same being to provide means whereby the coating material or engobe may be applied to a brick or other article in any desired thickness and in such a manner that it will closely adhere thereto.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be set forth in the claims.

In the drawings forming a part of this specification, Figure 1 is a sectional elevation illustrative of my invention, showing the same applied to the discharge end of a brick-machine. Fig. 2 is a plan view of the same, and Fig. 3 is an end elevation.

In those methods of coating bricks and other clay articles with which I am familiar the engobe or coating material, consisting of a mixture of clay and coloring-matter, is made in about the consistency of cream and the brick or other article is dipped therein by hand, after which it is laid aside until the engobe or coating material partially dries and hardens. It is then again dipped and laid aside to dry and harden, this dipping and drying operation being continued until the coating is of the proper thickness on the surface of the brick. At other times the brick or other article to be coated is sprayed with the engobe, of creamy consistency, then laid aside to partially dry and harden, and afterward again sprayed and laid aside, this operation being continued until a coating of proper thickness has been obtained upon the surface of the brick. These methods, however, are objectionable, not only because of the time consumed in carrying out the same, but because of the thinness of the coating thereby obtained and because the coating does not adhere to the brick or other article firmly

enough to withstand the pressure and use to which bricks and tiles are ordinarily subjected.

According to my invention the engobe is employed in a thick plastic condition, the same consisting of such materials so colored as may be desired to use for coating or veneering purposes.

My improvements are designed to be used in connection with any suitable form of brick-machine from which an endless clay bar is continuously ejected or discharged and afterward cut up into the proper sizes for the brick or tile to be made therefrom.

The cylinder 1, having the feed-opening 2 for the clay, the former 3, and the shaping-die 4 may all be of any suitable form and construction, the die 4 being, of course, of the same size and shape in cross-section as the brick or tile to be made. From the cylinder 1 through the former 3 and die 4 is fed a continuously-moving clay bar 5, from which the bricks or tiles are to be made. Secured to any suitable support adjacent to the discharge end of the brick-machine are the surface-preparing slickers or dies 6, 7, and 8, the same being designed for the purpose of smoothing, roughening, grooving, or corrugating the surface of the clay bar 5 prior to the application of the engobe thereto. These slickers are shown in the form of annular frames arranged side by side in close contact with each other, and the size and shape of the same correspond to the size and shape of the bar 5 in cross-section. The inner surface of each of the slickers 6, 7, and 8 is so shaped as to form the desired configuration on the surface of the bar 5 while the latter is passing through the same or to smooth or otherwise roughen the surface of said bar. While three of such surface-preparing slickers are shown, it is obvious that I may dispense with one or more of the same or may use an additional number. At a suitable distance from the slickers 6, 7, and 8 and in line with the same is an engobe-applying slicker or die 9, the same being shown in the form of an annular frame of substantially the same shape in cross-section as the clay bar 5. Through this slicker 9 the bar 5 is caused to pass, and between the slickers 8 and 9 one surface at least of the bar 5 is exposed. At this point the en-

gobe or coating material in the form of a thick plastic mass is applied. In order to cause the same to more firmly adhere to the bar 5 and to spread the same evenly on said bar, the inner wall of the slicker 9 is formed with an inclined surface 10, beneath which a small quantity of the engobe may lodge. The engobe being placed upon the moving bar 5 at the point between the slickers 8 and 9, the progressive movement of said bar causes the engobe to be forced between the inclined surface 10 of the slicker 9 and the surface of the bar 5. The continued progressive movement of said bar causes the engobe to be pressed by the inclined surface 10 of the slicker 9 into and onto the bar 5, so that it will firmly adhere thereto. By increasing or decreasing the distance of the innermost point of the inclined surface 10 from the surface of the bar 5 a coating or film of greater or less thickness may be applied. As the engobe is thus applied by pressure to the surface of the clay bar, which has previously been subjected to the action of the slickers 6, 7, and 8 for the purpose of roughening or otherwise preparing the surface of said bar, it will be observed that a coating is obtained upon the surface of the bar 5 which will closely adhere thereto, so as to be able to withstand such pressures and other uses as the bricks or tiles may be subjected to, and also that the bar may be coated as it passes from the brick-machine without the necessity of a number of similar successive operations and without the delay which is brought about by the time required for drying the different successive coatings.

In order to support a mass of engobe of greater diameter than that of the bar 5, I may secure a table or laterally-extending shelf 11 at the point where the bar 5 is exposed between the slickers 8 and 9. It may also be found desirable to provide a hopper 12, by means of which the engobe may be delivered to the surface of the bar 5.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In apparatus for coating or veneering bricks or other articles of clay, the combination with the final shaping-die of a brick-machine, through which a clay bar is caused to issue, of an engobe-applying slicker or die, whose rear end is separated from and is in front of said shaping-die, so as to leave one surface of the clay bar entirely exposed and thereby adapting it to sustain the engobe in a thick plastic condition, the said slicker having an inclined or beveled surface adjacent to the clay bar.

2. In apparatus for coating or veneering bricks or other articles of clay, the combination with a brick-machine provided with means for feeding a clay bar, of an engobe-applying slicker or die having an inclined or beveled surface adjacent to the clay bar, and an engobe-supporting table located between the discharge end of said machine and said slicker and projecting laterally beyond the sides of the clay bar.

3. In apparatus for coating or veneering bricks or other articles of clay, the combination with a brick-machine provided with means for feeding a clay bar, of means independent of the shaping-die in the discharge end of said machine for preparing the surface of the bar for the application of the coating material, and means for spreading the coating material on said bar.

4. In apparatus for coating or veneering bricks or other articles of clay, the combination with a brick-machine provided with means for feeding a clay bar, of means independent of the shaping-die in the discharge end of the machine for preparing the surface of the bar for the application of the coating material, and means for spreading the coating material on said bar and for forcing the same into close contact with said bar.

5. In apparatus for coating or veneering bricks or other articles of clay, the combination with means for feeding a clay bar, of a surface-preparing slicker or die into contact with which said bar moves, and an engobe-applying slicker or die whose rear end is separated from and is in front of the forward end of said surface-preparing die so as to leave one surface of the clay bar entirely exposed and thereby adapting it to sustain the engobe in a thick plastic condition, the said engobe-applying slicker having an inclined surface adjacent to the moving bar.

6. In apparatus for coating or veneering bricks or other articles of clay, the combination with means for feeding a clay bar, of a surface-preparing slicker or die into contact with which said bar moves, an engobe-applying slicker or die separated from said surface-preparing die and having an inclined surface adjacent to the moving bar, and a laterally-extending shelf or table between said slickers or dies for supporting the engobe.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ANDREW RAMSAY.

Witnesses:

JAMES CLIFFORD,
LEWIS E. YOUNG.