C. M. ABBOTT.

MEANS FOR APPLYING ADHESIVE TO SEAMS.

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1,126,156. Patented Jan. 26, 1915.

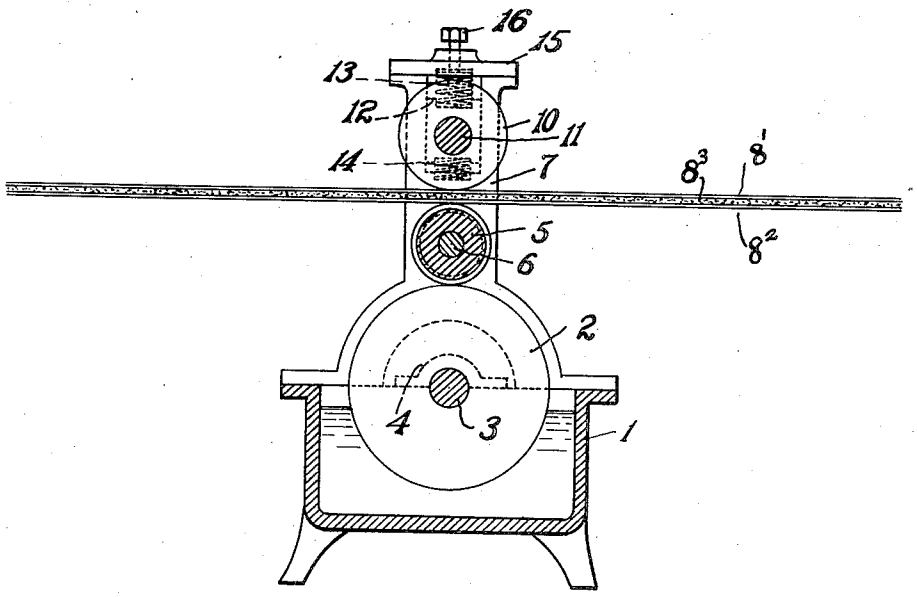


FIG. 1

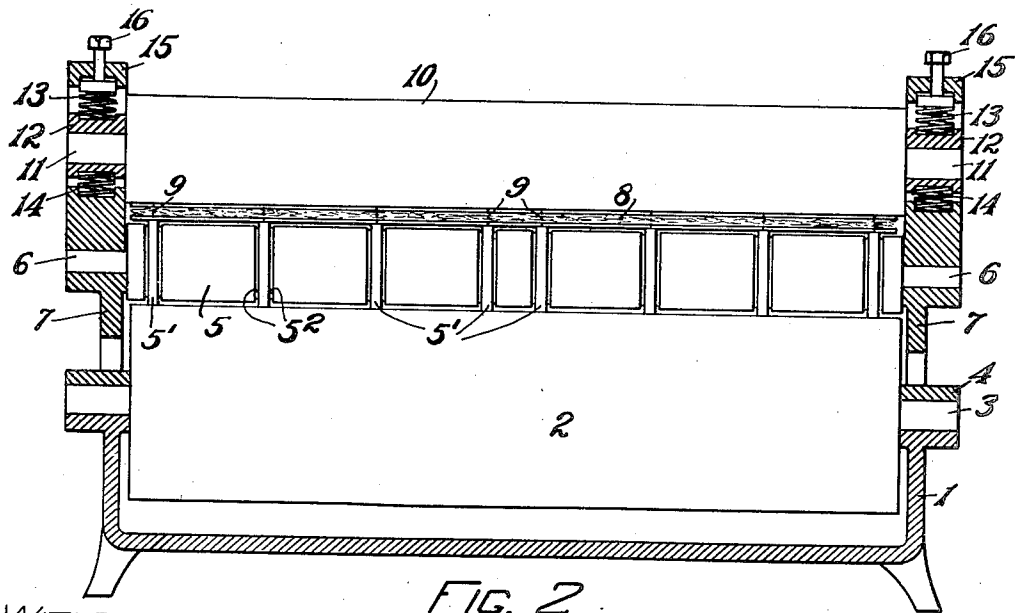


FIG. 2

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MEANS FOR APPLYING ADHESIVE TO SEAMS.

1,126,156. Specification of Letters Patent. Patented Jan. 26, 1915.

Application filed March 2, 1911. Serial No. 611,912.

To all whom it may concern:

Be it known that I, CHARLES M. ABBOTT, a citizen of the United States, residing at Watertown, county of Middlesex, Commonwealth of Massachusetts, have invented certain new and useful Improvements in Machines for Applying Adhesive to Seams, of which the following is a specification.

This invention relates to gluing machines, and particularly to a machine for applying glue, or any other adhesive, to the stitched seams of an insulating material. This material, which will be more fully discussed later, is stitched in long seams, usually with chain stitching, and the thread is particularly liable to local breakage. My present machine is especially adapted to the gluing or cementing of the stitches of these seams. In the specification which follows I will more fully describe this machine but, in general, it will be understood that it is its purpose to lay on the seams simultaneously a narrow path of suitable adhesive, so that the stitching will not only be glued stitch by stitch but will also be protected.

As illustrative of my invention, I have shown a machine which I have found particularly adapted to this usage. In the drawings which form part of the specification I have therefore, illustrated this machine, reference being had throughout specification and drawings to corresponding parts through the medium of reference numerals similarly applied throughout.

In the drawings:—Figure 1 is a transverse sectional view of my machine, and Fig. 2, a longitudinal view of the same, also partly in section.

I provide a suitable glue chamber or receptacle 1 for the adhesive, on which is formed a bearing 4, within which the shaft 3 of the roll 2 is journaled. The chamber 1 is extended at 7 to form a bearing for the shaft 6 of the gumming roll 5, and above this is provided a bearing 12 resiliently mounted between the springs 13 and 14. The spring 13 is controlled by a bolt 16 which passes through the top plate 15 of the frame. Within the bearing 12 is journaled a shaft 11 of the pressure roll 10, which is thus poised above the work with a slight yield in either direction.

The roll 5 is formed with a series of adhesive laying disks 5^1 spaced apart by sections 5 of less diameter. The sections 5 and the disks 5^1 are separated by grooves 5^2. These grooves prevent the travel of the glue from the disks 5^1 to the sections 5. The disks 5^1 are spaced apart the exact distance of the seams 9 which are stitched through the work 8. The rims of the disks 5^1, therefore, track along the seams 9 of the work 8 as it is fed through the machine. At the same time, the sections 5, which are of slightly less diameter than the disks 5^1, afford a bearing for the material between the seams, thus preventing a sagging of the material and a straining of the seams.

Referring to Fig. 1, it will be seen that the material consists of a pair of external sheets 8^1 and 8^2 with an interposed layer or filling as indicated at 8^3.

In operation my device will act as follows:—The chamber 1 is filled with any suitable adhesive in proper condition for work and the end of a roll of material 8 is introduced between the roll 7 and the roll 5. The material is laterally gaged so that the seams 9 will come over the center of the disks 5^1. The material 8 is then fed through the machine with the rolls 10, 6 and 2 turning to feed the material. The adhesive is taken up by the cylinder 2 and applied to the rim of the disks 5^1 and through these transmitted to the under side of the seams 9 which are stitched lengthwise of the material 8.

It is obvious that the machine may be driven in any suitable manner and the parts may be constructed, arranged and manipulated in any form desired, all within the spirit of my invention if within the limit of the appended claims.

What I, therefore, claim and desire to secure by Letters Patent is:—

1. In a machine for gluing seams in quilt and similar compressible material, an adhesive feeding roll, a transfer roll having a plurality of spaced transfer disks thereon in peripheral contact with said feed roll and arranged to track along the seams of the work, and surface supporting rolls of slightly less diameter than said disks interposed between said disks and providing intermediate bearing and support for the work between the seams whereby sagging or warping of the work is prevented, and a yieldingly mounted pressure roll arranged to yieldingly present the material to said

transfer roll as the material is passed through the machine.

2. In a machine for gluing seams in quilt and other compressible material, an adhesive feeding roll, a transfer roll having a plurality of spaced transfer disks thereon in peripheral contact with said feed roll and arranged to track along the seams of the work, and surface supporting rolls of slightly less diameter than said disks interposed between said disks and providing intermediate bearing and support for the work between the seams whereby sagging or warping of the work is prevented, said surface supporting rolls having grooved traps located between their ends and the sides of the disks whereby travel of the adhesive from the disks to the rolls is prevented, and a yieldingly mounted pressure roll arranged to yieldingly present the material to said transfer roll as the material is passed through the machine.

3. A transfer roll for presenting adhesive to the seams of quilt or other compressible material, comprising a plurality of spaced transfer disks arranged to take up the adhesive and apply it to the seams, and surface supporting rolls of slightly less diameter than said disks interposed between said disks and providing intermediate bearing and support for the work between the seams whereby sagging or warping of the work is prevented.

4. A transfer roll for presenting adhesive to the seams of quilt or other compressible material, comprising a plurality of spaced transfer disks arranged to take up the adhesive and apply it to the seams, and surface supporting rolls of slightly less diameter than said disks interposed between said disks and providing intermediate bearing and support for the work between the seams whereby sagging or warping of the work is prevented, said surface supporting rolls having grooved traps located between their ends and the sides of the disks whereby travel of the adhesive from the disks to the rolls is prevented.

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

CHARLES M. ABBOTT.

Witnesses:

R. B. ELLMS,

L. D. GOODWIN.