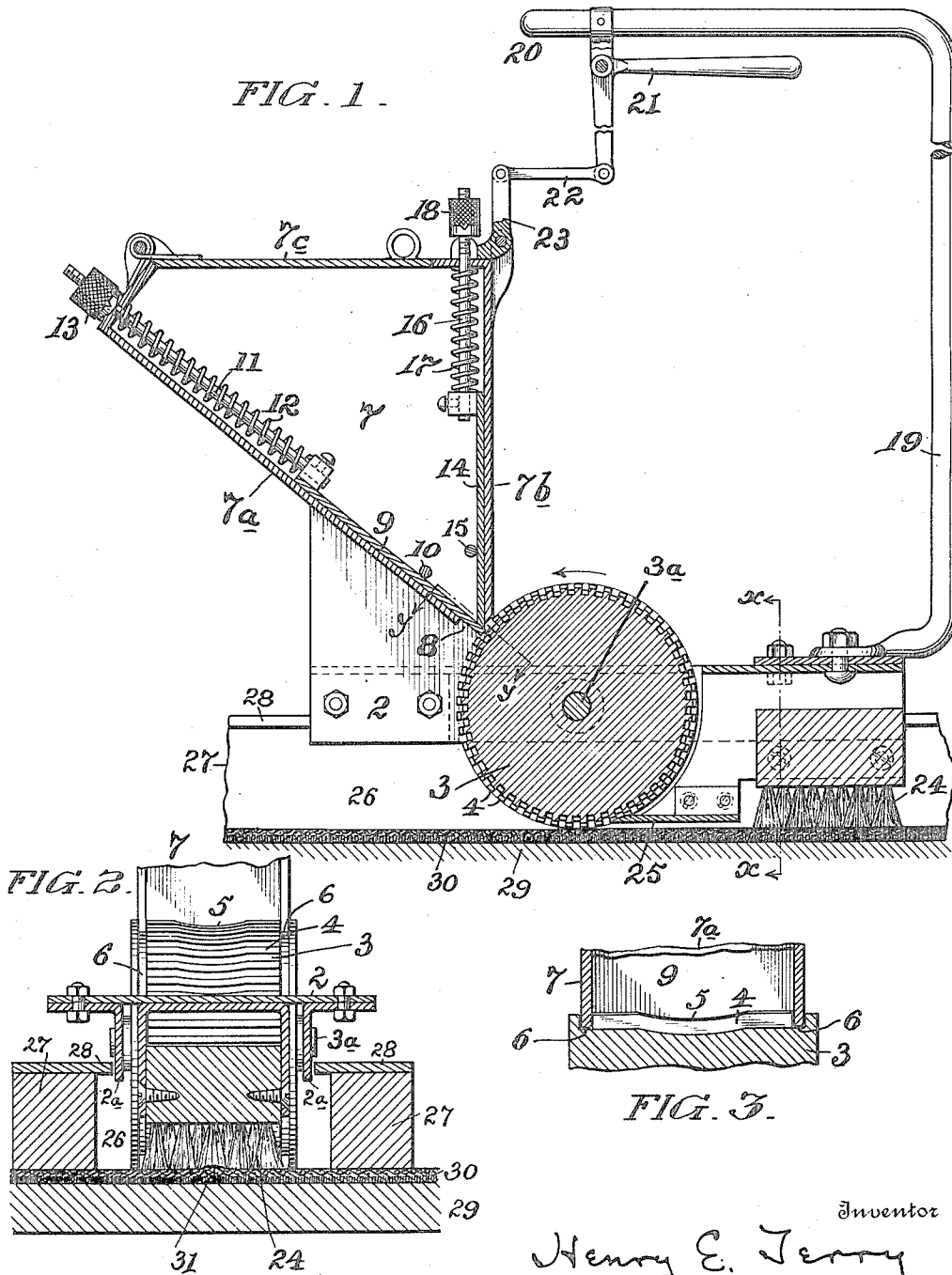


H. E. LERRY.
MEANS FOR TREATING SEAMS OF RUGS.
APPLICATION FILED APR. 12, 1916.

1,234,233.

Patented July 24, 1917.
2 SHEETS—SHEET 1.



Witnesses

Daniel Webster, Jr.
E. W. Smith.

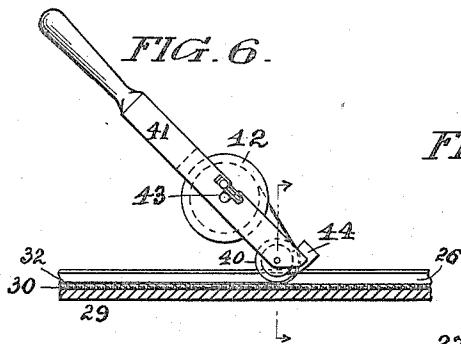
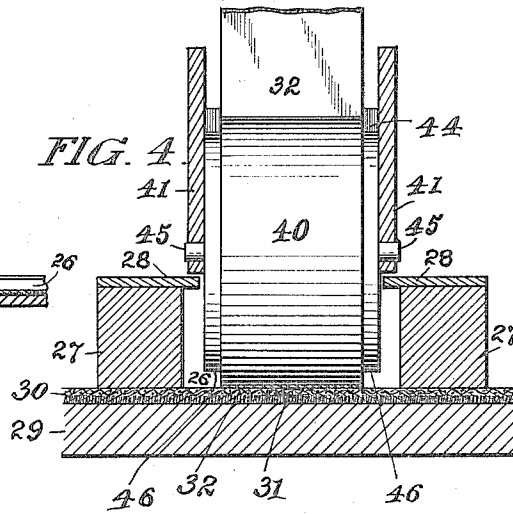
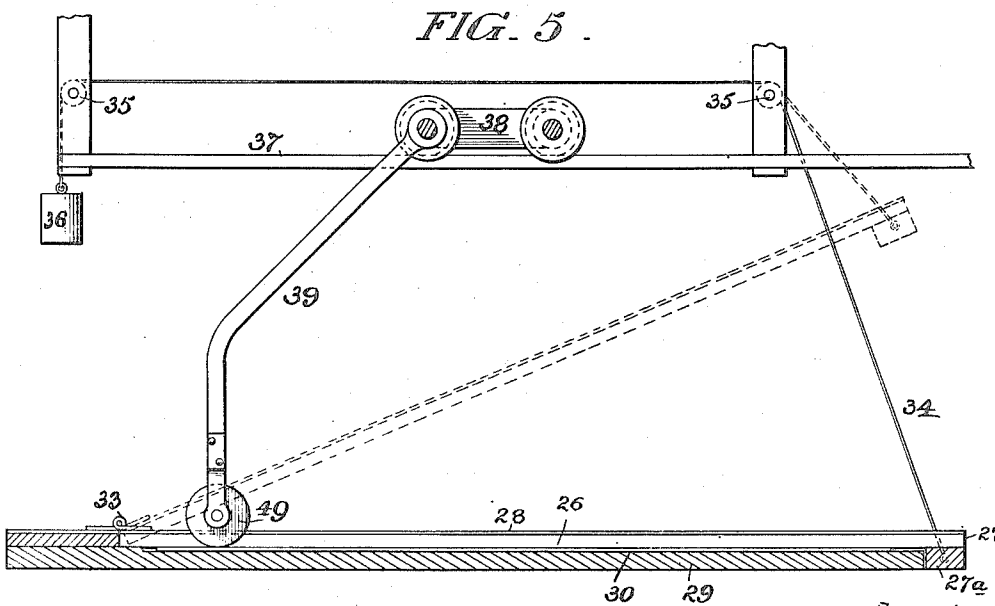
By

Inventor
Henry E. Lerry
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Attorney

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UNITED STATES PATENT OFFICE.

HENRY E. TERRY, OF MELROSE, PENNSYLVANIA.

MEANS FOR TREATING SEAMS OF RUGS.

1,234,233.

Specification of Letters Patent.

Patented July 24, 1917.

Application filed April 12, 1916. Serial No. 90,668.

To all whom it may concern:

Be it known that I, HENRY E. TERRY, a citizen of the United States, and resident of Melrose, county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Means for Treating Seams of Rugs, of which the following is a specification.

The object of my invention is to provide suitable means for cementing reinforcing strips or tapes along the seams at the back of a pieced rug, said attached strips or tapes being intended for holding the seamed portions of the rug flat, as set out in Letters Patent No. 1,136,380, and dated April 20, 1915.

More particularly the object of my invention is to clamp the rug down upon a floor or foundation with the bottom side up, then apply paste along the length of the seams, then apply strips or tapes upon the pasted seams, and finally press down the strips or tapes to retain the seams in flattened condition.

My invention consists of certain features of construction for enabling the above stated objects to be efficiently obtained, all of which are fully described hereinafter and more particularly defined in the claims.

Referring to the drawings:—Figure 1 is a vertical section through the means for applying the paste to the rug seams, and shows said means in association with the supporting and guiding devices; Fig. 2 is a transverse section of the same on line $x-x$ of Fig. 1; Fig. 3 is a sectional view of Fig. 1 taken on line $y-y$; Fig. 4 is a vertical sectional view of the tape applying means taken on line $z-z$ of Fig. 6; Fig. 5 is an elevation with part in section of the means for clamping the rug and pressing the seams; and Fig. 6 is a side elevation with part in section showing the means for applying the tape to the pasted seam.

First considering the general construction of the means for receiving and clamping the rug in a flat condition, there is the bed 29 upon which the rug 30 in inverted condition is placed. Above the bed 29 is a frame consisting of the parallel timbers 27 and the cross strip 27^a at the outer end, said timbers 27 being hinged at 33 to the bed 29 (Fig. 5). There may be any number of the parallel timbers 27 according to the seams to be treated, said timbers being spaced apart in pairs a little wider than the width of the tape or reinforcing strip 32 to provide race

ways 26, as will be understood by reference to Fig. 4. These timbers 27 hold the rug down during the operation of applying the strip and prevent buckling or creeping during the final or pressing operation. The upper surfaces of the parallel timbers 27 are capped with metal plates 28 which act as guides as hereinafter explained. The frame comprising the parts 27, 28 and 27^a may be raised or lowered at its free end by means of a rope 34 passing over guide sheaves 35 near the ceiling and counterweighted at 36. Above each pair of timbers 27 and guide plates 28 is an overhead track 37 upon which a truck 38 runs and from which depends a hinged arm 39 carrying at its lower end a press roll 49 for finally pressing the finished seam.

In applying the tape, the paste applying devices shown in Figs. 1, 2 and 3 and the tape applying means shown in Figs. 4 and 6 are employed in association with the bed and hinged frame above described. Referring to Figs. 1, 2 and 3 a paste wheel 3 is journaled at 3^a in the frame 2 having a handle 19 by which to move it over the rug and between the guide plates 28. The frame 2 provides two side angle irons 2^a, the vertical flanges of which depend between and are guided through the race way 26 by the guide plates 28 of the timbers 27. At its forward end it supports a paste vat 7 having a vertical rear wall 7^b and an inclined bottom 7^a, said parts approximately meeting upon the upper forward portion of the wheel 3, but providing a transverse aperture for flow of the paste to the wheel 3. Upon the inside surface of the bottom plate 7^a of the vat is a plate 9 held in place by a transverse rod under which it slides, said plate having a rod 11 extending above the top of the vat and furnished with a hand nut 13 by which the plate may be adjusted to regulate the flow of paste. A spring 12 surrounds the rod 11 and acts to press the valve plate 9 toward the paste wheel 3 while the nut 13 restricts or controls the action of the spring. 14 is a cut-off plate or valve and is guided against the vertical wall 7^b of the vat held in place by the transverse guide rod 15. This cut-off plate 14 is forced downward by a spring 17 and has its normal position regulated by a rod 16 and a hand nut 18 supplemented by a hand controlled means for temporarily lifting the plate. This last mentioned means consists of a bell crank

lever 23 hinged on the vat and operating by one arm directly upon the under side of the hand nut 18 and having the other arm linked at 22 with a bell crank lever 21 hinged to the handle frame 19 adjacent to its forward end 20. While the devices are being pushed along the seam of the rug, the lever 21 may be manually operated to permit flow or arrest the flow of paste at will. The adjustment of the plate 9 will govern the thickness of the layer of paste which may be delivered to the wheel 3 while the valve plate 14 positively controls the flow. The top of the vat 7 has a cover 7^c so that the paste may be kept clean and also avoid too rapid evaporation and hardening.

Referring more particularly to the construction of the paste applying wheel 3, it consists of a roller having two circumferential grooves 6, one near each outer face, and the circumferential surface between said grooves formed with transverse parallel slits or grooves forming transverse ribs 4, and these ribs are centrally notched to form a circumferential groove 5, which straddles the seam 31 before it is flattened. The side plates of the vat 7 extend into the grooves 6 (Figs. 2 and 3) and prevent lateral spreading of the paste when being delivered to the wheel. It will be understood that the lower end of plate 9 is shaped to fit the surface of the wheel 3 as shown in Fig. 3 to insure that the paste is delivered uniformly upon the wheel. When the paste is received upon the wheel 3 it fills the transverse grooves between the ribs 4 and is applied to the rug in transverse bodies along the length of the seam 31.

Immediately to the rear of the paste wheel 3 is a scraper 25 parallel to the rug and having its forward edge adapted to fit close to the peripheral surface of the wheel. In this way the excess of paste upon the rug is prevented and is pushed back upon the wheel. Back of the scraper 25 is the brush 24 also secured to the frame 2, said brush adapted to brush down the paste into a uniform layer and into the textile surface of the rug back so that it will thoroughly unite the tape to be applied to the back of the rug.

After the paste is applied to the seam, the hand tool shown in Fig. 6 is employed. This consists of a handle 41 having at the bottom a roller 40 under which the tape 32 is guided and by which it is given a preliminary pressure to insure its proper positioning. This roller 40 may be reduced in diameter at its sides, as at 46, so as not to pick up any paste and transfer it to the hand frame 41 or to the guide plates 28 of the race way, and also receives the inwardly extending sides of the guide 44 under which the tape is guided about the roller 40. The handle also supports a reel 42 for the tape and having an axle detachably held in the

handle, the tape passing from the reel down and under the roller 40 and between it and the guide 44 aforesaid.

It will now be understood that after the paste applying means has been run along the race way 26, the tape is applied and then the latter is pressed down by the use of the press roll 49 which is run along the finished seam. When the seams are completed the frame is lifted as indicated in dotted lines (Fig. 5) and the rug is removed.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable, and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that I do not restrict myself to the details, as the same are susceptible of modification in various particulars without departing from the spirit or scope of the invention.

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

1. In apparatus of the character stated, a clamping frame adapted to hold a rug flat and providing a longitudinal guiding race way within which the rug seam may be exposed, combined with a movable carriage having guiding portions adapted to be guided by the sides of the guiding race way, a paste applying wheel journaled in the frame and of less width than the race way, a paste vat carried by the frame for supplying paste to the paste wheel, and controlling means for controlling the flow of paste from the vat to the wheel.

2. In apparatus of the character stated, a clamping frame adapted to hold a rug flat and providing a longitudinal guiding race way within which the rug seam may be exposed, combined with a movable carriage having guiding portions adapted to be guided by the sides of the guiding race way, a paste applying wheel journaled in the frame and of less width than the race way, a paste vat carried by the frame for supplying paste to the paste wheel, controlling means for controlling the flow of paste from the vat to the wheel, and a brush secured to the frame at the rear of the paste wheel to distribute the paste uniformly.

3. In apparatus of the character stated, a clamping frame adapted to hold a rug flat and providing a longitudinal guiding race way within which the rug seam may be exposed, combined with a movable carriage having guiding portions adapted to be guided by the sides of the guiding race way, said carriage provided with means for applying paste upon the exposed seam of the rug, a heavy press roll extending into the race way and also guided thereby, it

travels in alinement over the seam to which the paste has been applied, an arm to the bottom of which the press roll is journaled, and a guiding means at a higher elevation than the clamping frame for guiding the upper end of the arm in a line parallel to the race way.

4. The combination of a suitable bed upon which a rug may be laid, a frame hinged thereto and provided with longitudinal clamping parts forming a race way between them, means for raising and lowering the clamping frame, means guided by the sides of the race way for applying paste along the seam of the rug, and a press roll supported and arranged to be guided along the race way in the path traversed by the paste applying means.

5. In an apparatus for treating seams of rugs, the combination of a bed upon which the rug may be placed bottom upward, a hinged clamping frame hinged to the bed and provided with longitudinal portions forming a race way between them within which the seam may be exposed, means for raising and lowering the hinged clamping frame, a press roll extending into the race way and guided thereby, an overhead guide at a distance above the bed and hinged clamping frame, guiding devices traveling upon said overhead guide, and an arm connecting said guiding means at the top and to the bottom of which the press roll is journaled, whereby the press roll may be caused to travel along the length of the race way and maintain a proper alinement of its axis.

6. In an apparatus for treating seams of rugs, the combination of means to clamp the rug and form a race way, with paste applying means consisting of a frame guided in the race way, a paste wheel journaled in the frame and having transverse grooves and ribs for receiving paste and applying it to the rug, a paste vat carried by the frame and having an opening adjacent to the paste wheel, and a manually controlled quick-acting valve for controlling the flow of paste from the vat to the wheel.

7. In an apparatus for treating seams of rugs, the combination of means to clamp the rug and form a race way, with paste applying means consisting of a frame guided in the race way, a paste wheel journaled in the frame and having transverse grooves and ribs for receiving paste and applying it to the rug, a paste vat carried by the frame and having an opening adjacent to the paste wheel, a manually controlled quick-acting valve for controlling the flow of paste from the vat to the wheel, and means in addition to the manually controlled means for adjusting the quick-acting valve to limit the extent of its closing movement.

8. In an apparatus for treating seams of rugs, the combination of means to clamp the

rug and form a race way, with paste applying means consisting of a frame guided in the race way, a paste wheel journaled in the frame and having transverse grooves and ribs for receiving paste and applying it to the rug, a paste vat carried by the frame and having an opening adjacent to the paste wheel, a manually controlled quick-acting valve for controlling the flow of paste from the vat to the wheel, and an adjustable slide adapted to cooperate with the manually controlled valve for regulating the rate of flow of the paste to the paste wheel.

9. In an apparatus for treating seams of rugs, the combination of means to clamp the rug and form a race way, with paste applying means consisting of a frame guided in the race way, a paste wheel journaled in the frame and having transverse grooves and ribs for receiving paste and applying it to the rug, a paste vat carried by the frame and having an opening adjacent to the paste wheel, a manually controlled quick-acting valve for controlling the flow of paste from the vat to the wheel, and an adjustable slide adapted to cooperate with the manually controlled valve for regulating the rate of flow of the paste to the paste wheel comprising a flat plate arranged along the bottom of the vat and across its opening, a spring for forcing the plate forward toward the paste wheel, a rod extending from the plate to the outside of the vat, and a hand adjusting device on the rod for opposing the action of the spring and limiting the movement of the plate toward the paste wheel.

10. In an apparatus for treating seams of rugs, the combination of means to clamp the rug and form a race way, with paste applying means consisting of a frame guided in the race way, a paste wheel journaled in the frame and having transverse grooves and ribs for receiving paste and applying it to the rug, a paste vat carried by the frame and having an opening adjacent to the paste wheel, a manually controlled quick-acting valve for controlling the flow of paste from the vat to the wheel, a scraper plate carried by the frame and arranged at the rear of the paste wheel substantially tangentially to the lower portion thereof, and means at the rear of the scraper for rubbing the paste into the rug adjacent to the seam.

11. In an apparatus for treating seams of rugs, the combination of means to clamp the rug and form a race way, with paste applying means consisting of a frame guided in the race way, a paste wheel journaled in the frame and having transverse grooves and ribs for receiving paste and applying it to the rug said paste applying wheel also having circumferential grooves between its sides and the transverse ribs and grooves, a paste vat carried by the frame and having an opening adjacent to the paste wheel and

having its sides extending into the circumferential grooves of the paste wheel, and a manually controlled quick-acting valve for controlling the flow of paste from the vat
5 to the wheel.

12. In an apparatus for treating seams of rugs, the combination of means to clamp the rug and form a race way, with paste applying means consisting of a frame guided
10 in the race way, a paste wheel journaled in the frame and having transverse grooves and ribs for receiving paste and applying it to the rug and in which the transverse ribs are notched in the middle portions to pro-

vide a middle circumferential groove in the
15 circumferential surface of the wheel to straddle the seam, a paste vat carried by the frame and having an opening adjacent to the paste wheel, and a manually controlled quick-acting valve for controlling the flow
20 of paste from the vat to the wheel.

In testimony of which invention, I hereunto set my hand.

HENRY E. TERRY.

Witnesses:

R. M. HUNTER,
FLORENCE DEACON.