I. EVANS.

SPREADING DEVICE.

APPLICATION FILED NOV. 8, 1920.

1,399,381. Patented Dec. 6, 1921.

Fig. 1

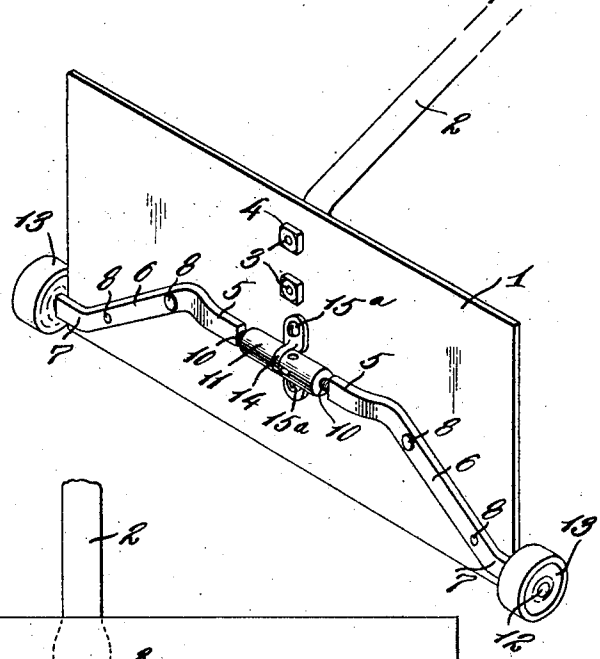
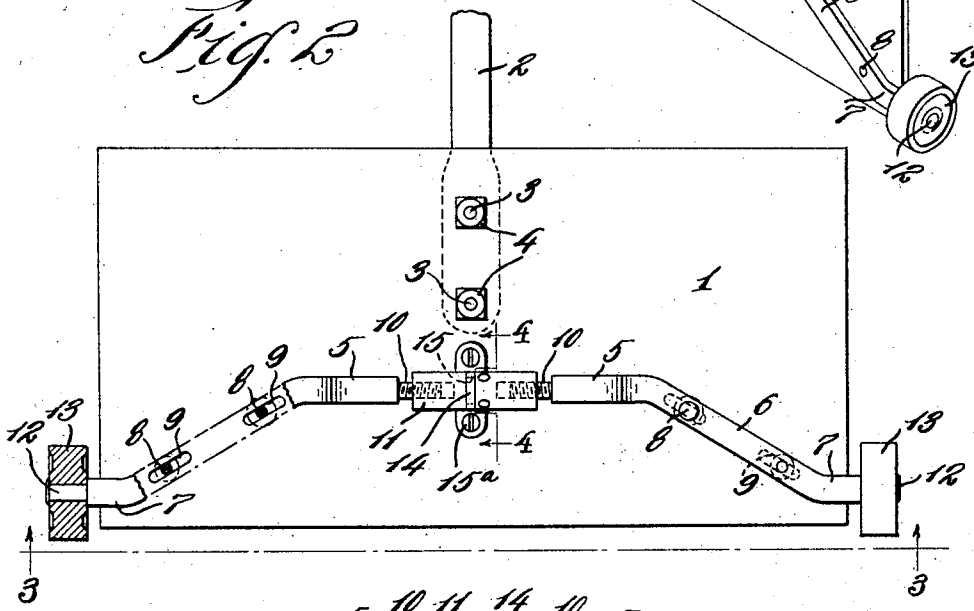


Fig. 2



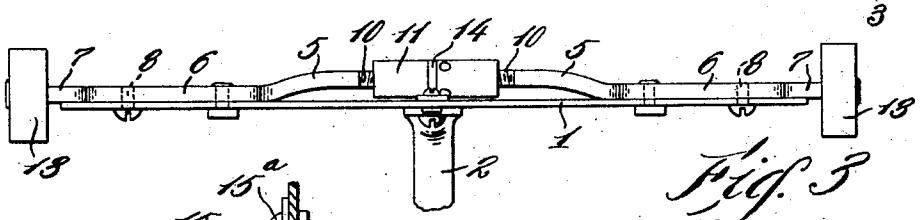


Fig. 3

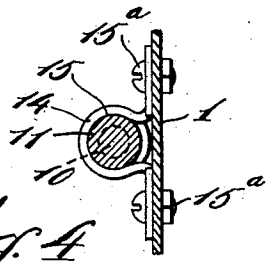


Fig. 4

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UNITED STATES PATENT OFFICE.

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SPREADING DEVICE.

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Application filed November 8, 1920. Serial No. 422,525.

To all whom it may concern:

Be it known that I, ISAAC EVANS, a citizen of the United States, residing at Cleveland Heights, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Spreading Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to tools for distributing and evening plastic, semi-plastic, or semi-fluid coatings, and has been found to be particularly useful in connection with the even distribution of roofing cement.

It is the general purpose and object of the invention to provide a tool of this character which, while simple in construction and economical of production, is well adapted for all of the ordinary incidents of use and is particularly efficient in operation. More limited objects of the invention will appear hereinafter and will be realized in and through the combinations of elements set forth in the claims forming part hereof.

In the drawings, Figure 1 represents a perspective view of a tool constructed in accordance with my invention, showing part of the operating handle; Fig. 2 a front elevation of such tool; Fig. 3 a view of the tool corresponding to the line 3—3 of Fig. 2 and Fig. 4 a sectional detail corresponding to the line 4—4 of Fig. 3.

Describing the various parts by reference characters, 1 denotes a blade, which may be of a height and width adapted for the particular character of work to be done, said blade having a handle 2 secured to one face thereof, as by means of bolts 3 and nuts 4. The blade is adjustably mounted upon rollers, the particular manner of mounting the same as disclosed herein being as follows: A pair of arms, comprising each a horizontal portion 5, a downwardly and outwardly inclined portion 6 and a horizontal portion 7, are mounted upon the front face of the blade 1 by means of screws 8 extending through inclined slots 9 and threaded into the inclined portions of said arms, the slots in each side of said blade being in a common inclined line. Each arm is provided at each inner end with a stud 10, the said studs being reversely threaded and connected by a turn buckle 11. The outer end of each arm is provided with a spindle 12 for the roller 13.

The turn buckle is secured to the blade 1 by means of a narrow strap 14 extending about a score or groove 15 at the central portion of the body of the turnbuckle and having its opposite ends secured to the blade, as by means of small bolts 15ª.

With the parts constructed and arranged as described, it will be evident that the distance between the bottom or spreading edge of the blade 1 and the bottom of the rollers may be adjusted to secure any desired thickness of coating between the bottom of such blade and the object which is coated. The coating, when treated being in a more or less fluid and spongy or elastic condition, the rollers will sink into the same and the bottom of the blade will distribute and even the coating, thereby to render the same uniform in thickness. Because of its consistency, the coating will of itself gradually fill in the grooves or tracks left by the rollers, and the latter in practice will be made narrow for the double purpose of penetrating through the coating to the support therebeneath and of enabling the grooves to be quickly refilled by the subsequent flowing or distribution of the coating.

Should it be desired to adjust the blade 1 with reference to the roller, this adjustment may be easily secured by slacking up on the screws 8 and operating the turnbuckle 11. Rotating the turnbuckle in one direction will cause the screws to ride up the slots 9, lifting the rollers and bringing the bottoms of the same closer to the bottoms of the blade; while, by rotating the turnbuckle in the opposite direction, the distance between the bottom of the blade and the bottom of the rollers will be increased. When this distance has been determined, the blade and rollers will be secured in such adjusted relation by setting up on the screws.

The use of a pair of spaced slots 9 for each arm enables the arms to be secured to the blade without liability of displacement.

Having thus described my invention what I claim is:

1. A device for the purpose described comprising a blade, rollers supporting said blade, and means for obtaining relative adjustment between said rollers and said blade.

2. A device for distributing and evening coatings comprising a pair of supports, a blade interposed between and carried by said supports, and means for obtaining relative adjustment between said blade and said supports.

3. In a device for distributing and evening coatings, the combination of a blade, a pair of shafts, a roller mounted on each shaft, a connection between each shaft and said blade whereby the position of the blade with reference to said shafts may be varied, and means for adjusting said shafts in unison.

4. In a device for distributing and evening coatings the combination of a blade, a pair of arms, a roller carried by each arm, means adjustably connecting each arm and said blade, and means connecting said arms for simultaneous operation.

5. In a device for distributing and evening coatings, the combination of a blade, a pair of arms, a support carried by each arm, means connecting the proximate ends of said arms for moving such ends toward and from each other, and means connecting each arm and said blade and adapted to cause relative movement between each arm and said blade by the operation of such connecting means.

6. In a device for distributing and evening coatings, the combination of a blade, a pair of arms, said arms having their inner ends in proximity, each arm comprising an intermediate portion, and said blade being provided with an inclined slot coöperating with the intermediate portion of each arm, clamping means carried by the intermediate portion of each arm and mounted in the slot corresponding thereto, a turnbuckle connecting the inner ends of said arms, and a roller carried by the outer portion of each arm.

7. In a device for distributing and evening coatings, the combination of a blade having an operating edge, a pair of arms, said arms having their inner ends in proximity, a support carried by the outer end of each arm, means connecting the inner ends of said arms for varying the distance between such ends, and a connection between each arm and said blade for varying the position of the said supports and of the said edge by the operation of such connecting means.

8. In a device for distributing and evening coatings, the combination of a blade having on each side of the center thereof a pair of inclined slots, each pair being arranged in an inclined line, a pair of arms each having an inclined portion arranged to coöperate with a pair of such slots, clamping means coöperating with the inclined portion of each arm and the pair of slots corresponding thereto, a turnbuckle connecting the inner ends of said arms, rollers on the outer ends of said arms, and a strap carried by the central portion of said blade and supporting said turnbuckle.

9. In a device for distributing and evening coatings, the combination of a blade having on each side of the center thereof a pair of inclined slots, a pair of arms each having a portion arranged to coöperate with a pair of slots, clamping means coöperating with each arm and the pair of slots corresponding thereto, a turnbuckle connecting the inner ends of said arms, and a supporting device on the outer end of each arm.

In testimony whereof, I hereunto affix my signature.

ISAAC EVANS.