E. S. JAROS & W. R. WILSON.

ADVERTISING DEVICE.

APPLICATION FILED NOV. 6, 1912.

1,087,295.

Patented Feb. 17, 1914.

2 SHEETS—SHEET 1.

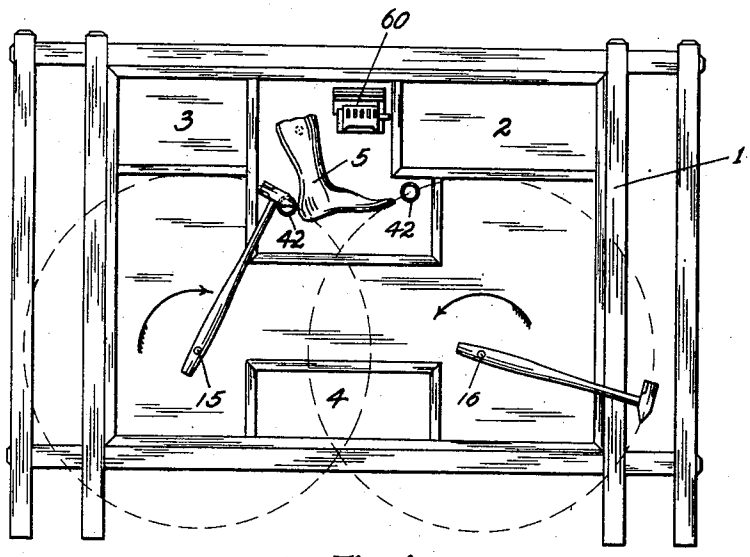


Fig. 1

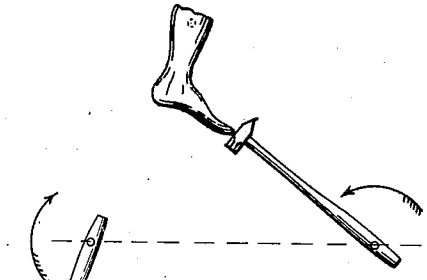


Fig. 2



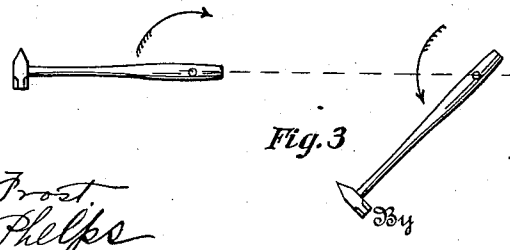


Fig. 3

Witnesses

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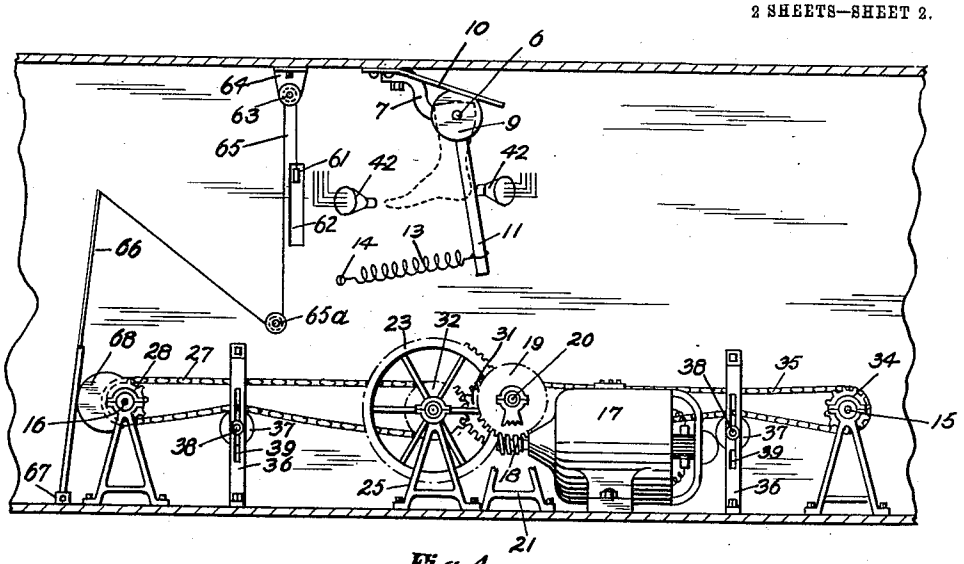


Fig. 4

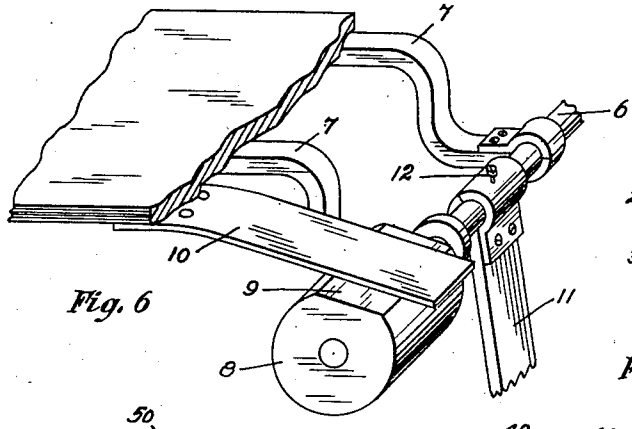


Fig. 6

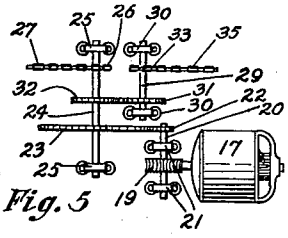


Fig. 5

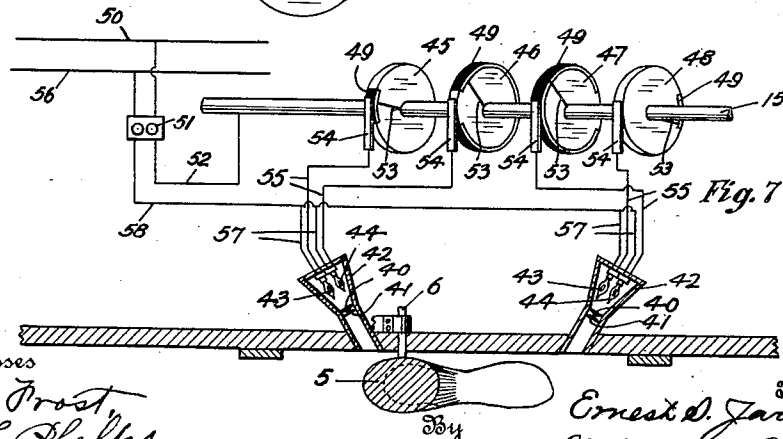


Fig. 7

Witnesses

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UNITED STATES PATENT OFFICE.

ERNEST S. JAROS AND WILLIAM R. WILSON, OF COLUMBUS, OHIO, ASSIGNORS TO THE UNITED DEMONSTRATING MACHINE COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF OHIO.

ADVERTISING DEVICE.

1,087,295. Specification of Letters Patent. Patented Feb. 17, 1914.

Application filed November 6, 1912. Serial No. 729,780.

To all whom it may concern:

Be it known that we, ERNEST S. JAROS and WILLIAM R. WILSON, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Advertising Devices, of which the following is a specification.

Our invention relates to advertising devices in general and is particularly directed to the provision of an advertising device constructed to demonstrate the wearing qualities of wearing apparel when subjected to conditions similar to those existing when in use by a person. We aim to make these wearing actions as severe as they would ordinarily be and, at the same time, recording the number of actions thus applied, so that a prospective purchaser may judge for himself what qualities of material and the like the garments are made of.

Our invention is susceptible to a variety of modifications and as a means of applying it, we have shown the device demonstrating the wearing qualities of men's hosiery. Wearing apparel in general is subjected primarily to percussive and rubbing frictional actions and to simulate these actions, we have provided an abrading member successively contacting with the artificial clothed member and effective to cause a rubbing frictional action in one continuous line of movement. In other words, we aim to provide a structure wherein the frictional rubbing action is effective successively in one direction only and, in the present embodiment, we have shown this direction of movement as downward toward the base of the leg form. To supplement this action, we also provide means whereby the abrading member is brought into percussive contact with the desired portion of the artificial clothed member.

In constructing a demonstrating machine of this type, we have found that there are numerous conditions under which the effectiveness of these wearing actions may be made to vary and to guard against too severe an application of these actions, we have provided means whereby their effectiveness may be varied. This preferably takes the form of means for controlling the movement of the abrading member during its cycle of operation.

A further object of our invention is to provide means for attracting attention to the affected portion of the garment on display and these means take the form of a stream of light played upon the article. We have also shown means for varying the character of the light thus played upon the wearing apparel and these means preferably take the form of various colored lights, which may be concentrated upon the affected portion, one light being effective during a portion of the cycle of operation of the abrading member, such as when said member is out of actual contact with the apparel and being extinguished and another colored light brought into operation during the abrading action.

The preferred embodiment of our invention is shown in the accompanying drawings, in which similar characters of reference designate corresponding parts, and in which:

Figure 1 is a front elevation of our preferred advertising device showing the direction of movement of the abrading members, Figs. 2 and 3 are fragmentary views showing the various positions of the abrading members during their cycle of operation, Fig. 4 is a rear view partially broken away of the structure shown in Fig. 1 and showing the operating mechanism, Fig. 5 is a plan view of a portion of the driving mechanism on a reduced scale from that shown in Fig. 4, Fig. 6 is a detail view in perspective of the construction for supporting the leg form, and, Fig. 7 is a diagrammatic view showing one means of applying streams of light upon the leg form.

As a means of illustrating our invention, we have shown a cabinet 1 of any suitable design and provided with card display spaces 2, 3 and 4. Pivotally mounted at any desired position upon the front of the cabinet, is an artificial leg form 5, preferably clothed with any brand of hosiery to be displayed. The leg form 5 is preferably pivotally mounted at a point near its upper extremity upon a shaft 6, which shaft extends to the interior of the casing 1 and is supported from its top by depending spaced brackets 7. At the extreme inner position of the shaft 6, we provide a cam 8 having a portion of its upper surface flattened as at 9, this flattened portion coacting with a plate spring 10 also supported from the top of the cabinet. It will be understood that

the leg form 5 is rigidly carried by the shaft 6 as is the cam 8 and movement of the leg form out of normal position, will cause the spring plate 10 to ride upon the edge formed by the curved portion of the cam and the flattened portion, whereupon the spring 10 exerts a pressure effective to return the leg form to its normal position. The point of attachment of the shaft 6 to the leg form 5 is not in vertical alinement with its center of gravity and consequently the effort required to bring the leg form 5 to its normal position varies in accordance with the amount it is forced out of such position by the abrading members. Therefore, to assist the spring plate 10 in one direction of movement, we provide a depending lever 11 rigidly secured to the shaft 6 by means of the set screw 12 and having a coiled spring 13 attached to its lower end and whose other end is fastened to the casing as indicated at 14. Movement of the leg form to the right, as shown in Fig. 4, will slightly tension the spring 13, thereby assisting the plate spring 10 in returning the leg form to its normal position.

In our present embodiment, we have shown the abrading members in the form of sledge elements having hammer shaped heads 15^a and 16^a mounted on handles 15^b and 16^b rigidly secured at a point near their ends, to shafts 15 and 16, which shafts derive a rotary motion from an electric motor 17 in the following manner. Carried on the armature shaft extension of the motor 17 is a worm 18 meshing with a worm wheel 19 rigidly carried by a shaft 20, which shaft is rotatably supported by vertical standards 21. Rigidly carried upon this shaft, there is also provided a pinion 22 meshing with a gear wheel 23 carried by a shaft 24, which shaft is also supported in vertical standards 25. Carried by the shaft 24 at a point near its end is a sprocket wheel 26 imparting rotary motion to the shaft 16 by means of the sprocket chain 27 and the complemental sprocket 28 also carried by the shaft 16. Extending in parallelism with the shaft 24 is another shaft 29 held in position by standards 30 and carrying a gear 31 meshing with a gear 32 carried by the shaft 24. It will thus be noted that the shaft 29 is driven in a direction opposite to that of the shaft 24 and consequently the sprocket 33 carried by the shaft 29 is also driven in a direction opposite to that of the sprocket 26. That portion of the shaft 15 extending within the casing 1 is also provided with a complemental sprocket 34 and is given rotary motion through the sprocket chain 35. From the description thus far given, it will be noted that the sledge elements are driven in opposite directions and are successively brought into wearing engagement with the heel and toe, respectively, of the leg form 5. In order that the sledge elements may impart a percussive action to the leg form, we have made the sprocket chains 27 and 35 sufficiently loose so that one strand of each chain will be maintained taut in carrying the sledge element from its downward vertical position to its upward vertical position. The shaft 16 deriving its rotary motion from the shaft 24, the upper strand of the chain 27 will be maintained taut in bringing the sledge to its upper vertical position, but upon the assumption of a position slightly past center, it will fall by gravity until the slack in the lower strand has all been absorbed and in this position the upper strand will now contain the slack. It is our object to have enough play in these chains to allow the sledge elements to impart a percussive action to the leg form before the slack has been entirely absorbed and as a means for regulating the tautness of these chains and consequently the amount of free fall of the sledge elements, we have provided standards 36 for embracing these chains and adjustably carrying the idler rollers 37 held in adjusted position by means of nuts 38 screwed upon the shaft extension for the rollers 37 and sliding vertically in slots 39. It will thus be apparent that the degree of tautness of each chain may be varied at will and consequently the effectiveness of each blow of the sledge elements upon the leg form may also be accordingly varied.

As a means for attracting the attention both to the wearing qualities of the garment on display and to the affected portion of the garment during each wearing action, we have provided means for applying and concentrating streams of light upon the garment. In the present instance, we have shown these streams of light as playing upon the heel and toe of the artificial clothed member and concentrated by lens 40 and 41, both preferably of plano-convex type having their convex surfaces adjacent each other and supported within casings 42. These casings 42 are supported through the front of the cabinet 1 in a position to throw the rays directly upon the affected portions and carry lamps 43 and 44 at their rear. These lamps are preferably of different colors and are alternately effective during the cycle of operation of each wearing action. The various colors are to attract special attention to this feature and we have so arranged our construction that during the period in which the sledge elements are in wearing engagement with the leg form, a red lamp is lighted and during the remaining portion of the cycle, a white light is lighted. In order to accurately time these lighting operations, we preferably provide the shaft 15 with commutator rolls 45, 46,

47 and 48 made of fiber or any other preferred insulating material and each having a conductive segment 49 of sufficient length to maintain its corresponding lamp lighted during the interval above mentioned. Current enters from any suitable source by a wire 50 and enters the shaft 15 through the fuse box 51 and through wire 52. From the shaft 15 current is conducted to the various segments 49 through wires 53 carried by each of the fiber rolls and in this manner is conducted to the lamps through wires 55 each time the contacting segments 49 engage the brushes 54 supported in any desired manner and return to the return main 56 by wires 57 and 58 and the fuse box 51. It will thus be noted that each lamp may be made to remain lighted any desired length of time and this length is regulated by the length of each contacting segment 49. We have also provided means for registering the number of cycles and these means take the form of a counter 60 carried by the front of the casing 1 and having a rearwardly extending arm 61 operating through a slot 62 in the casing. Carried by the top portion of the casing is an idler pulley 63 mounted between supporting brackets 64 and over which passes a cord 65 having one end attached to the arm of the counter 61 and passing over another roller 65[a] carried by the front of the casing at any desired point and having its rear end attached to an operating lever 66. This operating lever 66 is pivotally carried between supports 67 mounted upon the base of the cabinet and is actuated by a cam 68 carried by the shaft 16. Each time the shaft 16 makes a complete revolution, the higher portion of the cam 68 forces the lever 66 outwardly against the tension of a spring carried within the counter 60 and thereby registers such revolution. It will be understood that the action of the spring carried by the counter 60 at all times tends to keep the lever 66 in contact with the cam 68.

From the above description, taken in connection with the accompanying drawings, it will be apparent that we have provided simple means for demonstrating the wearing qualities of garments supported in any desired manner and that the effectiveness of each wearing action may be varied as may be desired.

It will further be apparent that we have provided novel means for attracting attention both to the garment itself and especially to the affected portion thereof by means of the concentrated streams of light played upon such portion.

What we claim, is:

1. An advertising device comprising means for supporting an article of wearing apparel, means for imparting a series of percussive actions to said article, and means for supplementing said percussive actions by a series of rubbing frictional actions effective successively in one and the same direction only.

2. An advertising device comprising means for supporting an article of wearing apparel, and means for imparting a series of rubbing frictional actions to a portion of said article successively and in the same direction only.

3. An advertising device comprising means for supporting an article of wearing apparel, and an element movable continuously in one direction for imparting a series of abrading actions to said apparel.

4. An advertising device comprising means for supporting an article of wearing apparel, an element for imparting a series of wearing actions to said apparel, and means for relatively moving said article and said element to produce a wearing action in one direction only during each contacting engagement of said element with said article.

5. An advertising device comprising means for supporting an article of wearing apparel, means for imparting a series of wearing actions to said article, and means for varying the effectiveness of said actions on the apparel.

6. An advertising device comprising means for supporting an article of wearing apparel, means for imparting a series of percussive wearing actions to said article, and means for varying the effectiveness of said percussive actions on the apparel.

7. An advertising device comprising an artificial clothed member, an abrading element, and means for bringing said member and said element into rubbing engagement with each other, said rubbing action being effective in one direction only during one continuous engagement.

8. An advertising device comprising means for supporting an article of wearing apparel, an abrading member, and means for moving said member into wearing engagement with said apparel, the movement of said member during its engagement with said apparel being in one direction only.

9. An advertising device comprising means for supporting an article of wearing apparel, an abrading element, and means for successively bringing said element into wearing engagement with said apparel by moving said element in a circular path and in one direction only over that portion of its path which engages said apparel.

10. An advertising device comprising an artificial clothed member, an abrading element, means for rotating said element continuously in the same direction to successively bring it into wearing engagement with said apparel whereby said element trav-

erses said apparel during its engagement in one direction only.

11. An advertising device comprising a pivotally mounted artificial clothed member, a rotatable abrading element, means for imparting a series of percussive actions to said member by rotation of said element, and means for varying the effectiveness of said percussive actions on said member.

12. An advertising device comprising a pivotally mounted artificial clothed member, a rotatable abrading element, means for imparting a series of percussive actions to said member by rotation of said element, and means for supplementing said percussive actions by a series of rubbing frictional actions effective in one direction only.

13. An advertising device comprising means for supporting an article of wearing apparel, means for imparting a series of wearing actions to said apparel, and means for automatically and intermittently playing a stream of light upon said apparel during the cycle of operation of said wearing action to attract attention to its wearing qualities.

14. An advertising device comprising means for supporting an article of wearing apparel, means for imparting a series of wearing actions to said apparel, and means for automatically and intermittently playing streams of variously colored lights upon said apparel during the cycle of operation of said wearing action to attract attention to its wearing qualities.

15. An advertising device comprising means for supporting an article of wearing apparel, means for imparting a series of wearing actions to said apparel, and means for automatically and intermittently concentrating a stream of light on the affected portion of said apparel.

16. An advertising device comprising means for supporting an article of wearing apparel, means for imparting a series of wearing actions to said apparel, means for automatically and intermittently playing a stream of light on the affected portion of said article, and means for varying the character of said light during a portion of the cycle of operation of said wearing means.

17. An advertising device comprising a pivotally mounted artificial clothed member, a rotatable abrading member, means for continuously rotating said abrading member whereby it is brought into wearing engagement with said artificial clothed member, and means for varying the effectiveness of the wearing action.

18. An advertising device comprising an artificial clothed leg form, sledge elements mounted upon either side of said leg form, and means for rotating each of said sledge elements continuously and in opposite directions with respect to each other, whereby they are brought into wearing engagement with said leg form.

19. An advertising device comprising an artificial clothed member, an abrading element, means for bringing said member and said element into wearing engagement with each other, means for automatically and intermittently playing a stream of light upon the affected portion of said member, and means for varying the character of said light during each abrading action.

20. An advertising device comprising means for supporting an article of wearing apparel, means for imparting a series of wearing actions to said apparel, and means for playing an intermittently effective stream of light upon said apparel to attract attention to its wearing qualities.

In testimony whereof we affix our signatures in presence of two witnesses.

ERNEST S. JAROS.
WILLIAM R. WILSON.

Witnesses:
WALTER E. L. BOCK,
A. L. PHELPS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."