S. C. LAY.

METAL CASE BROOM.

APPLICATION FILED FEB. 21, 1908.

946,234. Patented Jan. 11, 1910.

Fig. 1.

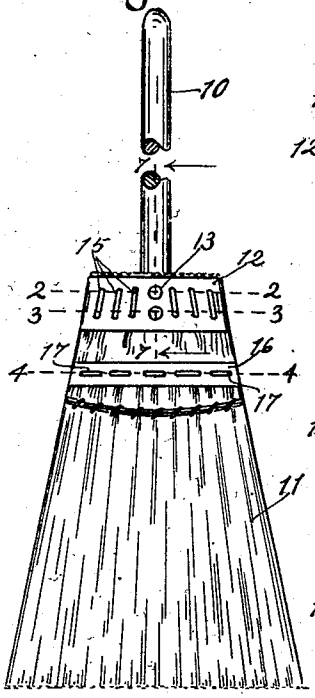


Fig. 2.

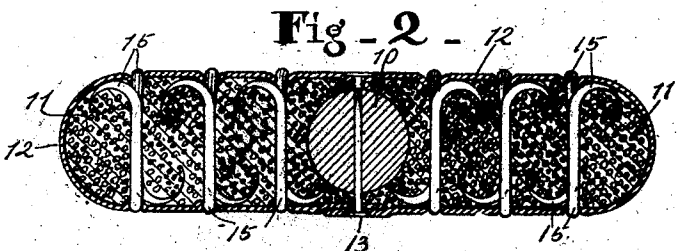


Fig. 3.

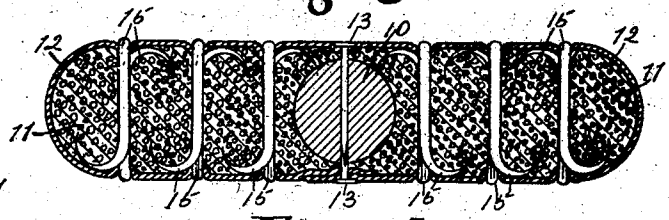


Fig. 4.

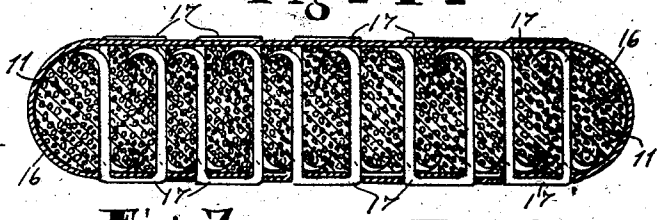


Fig. 5.

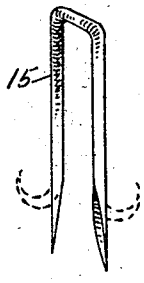


Fig. 7.

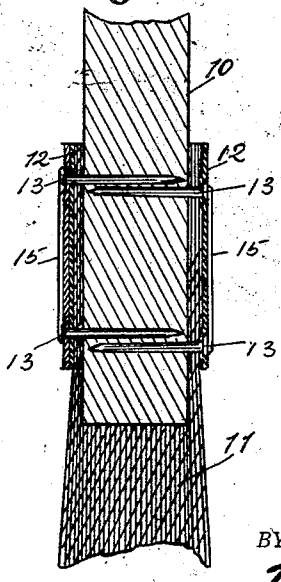
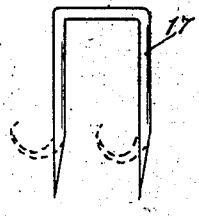


Fig. 6.



WITNESSES:

Olive Breeden

W. M. Gentle.

INVENTOR.

Samuel C. Lay.

BY

W. H. Lockwood

ATTORNEY.

UNITED STATES PATENT OFFICE.

SAMUEL C. LAY, OF RIDGEVILLE, INDIANA.

METAL-CASE BROOM.

946,234. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed February 21, 1908. Serial No. 416,990.

To all whom it may concern:

Be it known that I, SAMUEL C. LAY, of Ridgeville, county of Randolph, and State of Indiana, have invented a certain new and useful Metal-Case Broom; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like numerals refer to like parts.

The object of this invention is to improve the construction of metal case brooms in order to strengthen the same, to cheapen their construction and to make them so there will be no projections on the surface thereof that will catch in fabrics while the broom is being used.

The chief feature of this invention consists in combining with a metal cap the broom material therein, and large two-pointed nails so that they form simultaneously both an upper and lower series of fasteners and the points therof are each beveled on one side, preferably oppositely beveled, whereby said points turn in opposite directions for clenching the broom material.

By using a staple and beveling the points thereof, the broom maker is enabled to control the direction of bending and clenching of the ends of the staples or fasteners, which is impossible with nails whether beveled or not, and also impossible with staples unless beveled. Since fasteners will not be effective unless they extend transversely of the fiber broom corn, this characteristic of the action of beveled staples is one of very great importance in the manufacture of factory brooms.

The general nature of this invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a side elevation of the broom with the handle centrally broken away. Fig. 2 is a horizontal section therethrough on the line 2—2 of Fig. 1. Fig. 3 is a similar section on the line 3—3 of Fig. 1. Fig. 4 is a similar section on the line 4—4 of Fig. 1. Fig. 5 is a perspective view of the two-pointed nail used for the cap, as shown in Figs. 2 and 3, the bent position of the ends being shown by dotted lines. Fig. 6 is an elevation of the two-pointed nail used for the band as shown in Fig. 4, the bend of the points being shown by dotted lines. Fig. 7 is a vertical section on the line 7—7 of Fig. 1.

In the drawings 10 represents the handle of the broom and 11 the broom corn or broom material, the upper ends of which are secured to and about the lower end of the broom handle by means of the metal cap or case 12 with nails or other means 13 fastened through the cap and handle, as shown. In manufacturing such brooms the handle and broom corn surrounded by the cap is placed in the clamp and clamped down tightly in the form shown and the overlapping meeting ends of the metal cap are secured together by driving nails 13 through the same in the broom and there are nails usually driven on the opposite side. These nails not only go through the cap but through a thin layer of the broom material that lies between the cap and the handle.

The fasteners or nails 15 are driven through one side of the metal cap and the broom material and the inner end of the fastener or nail when it strikes against the opposite side of the metal cap turns and clenches the broom material tightly. While the fasteners or nails are being driven, one side of the metal cap with the broom material therein lies upon a flat rigid metal surface and the two edges of the metal cap are clamped down tightly onto such rigid surface, so that there is room left between the clamps on one side of the metal cap to insert the fasteners while the other side of the metal cap rests against the rigid metal object, so that such side of the metal cap will always turn the ends of the nails back into the broom fabric to clench the same instead of going on through the metal cap. Both sides of the metal cap are similarly treated and fastened.

The fasteners for the metal cap herein shown are large two-pointed wire nails that can be made by merely cutting ordinary wire slantingly into sections and binding the sections into U-shape and when thus formed the ends of the nail will be beveled on opposite sides so that when driven into the broom the ends will turn in opposite directions, as indicated, for clenching the material. These nails can be driven by machinery because they can be mechanically handled and inserted with accuracy. This enables many more of the two-pointed nails

to be driven in the same time than the single nails as formerly, and at the same time each two-pointed nail performs the function of two separate nails and in a much better way, for there is no projecting head to tear cloth or other material in a store or textile factory or to enable the nails to work out and the two ends of the nails are united so as to contribute materially to the strength of the fastening. When these two-pointed nails are thus driven into the broom their outer portions are, by the force of the hammer to a considerable degree embedded in depressions in the metal cap caused by the blow of the hammer on the nails. This gives to the metal cap a substantially smooth surface, at least one entirely free from rough projections.

The band 16 is also secured by two-pointed nails 17 but because said band is narrow said nails are placed longitudinally of the band instead of transversely thereof, as in the case of the metal cap. The nails 17 are preferably beveled on similar sides of their ends, as shown in Fig. 6, so that they will bend in the same direction for clenching.

What I claim as my invention and desire to secure by Letters Patent is:

1. A metal case broom including broom material, a metal cap surrounding the same, and two-point fasteners with each end beveled on one side that extend through one side of the casing and against the other side thereof with the beveled ends turned and clenching the material.

2. A metal case broom including broom material, a metal cap surrounding the same, and two-point fasteners with the ends of each fastener oppositely beveled and extending through one side of the metal cap and against the other side with the beveled points of each fastener turned in opposite directions and clenching the material.

3. A metal case broom including broom material, a metal cap surrounding the same, and two-point fasteners with each end thereof beveled on one side that extend through one side of the casing and against the other side with their beveled ends turned and clenching the material, one set of said fasteners extending through one side of the casing and another set extending through the opposite side of the casing, the oppositely located fasteners being similarly arranged and with their bent ends coöperating with each other for clenching the broom material.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

SAMUEL C. LAY.

Witnesses:
L. P. Tims,
Della Wolfe.