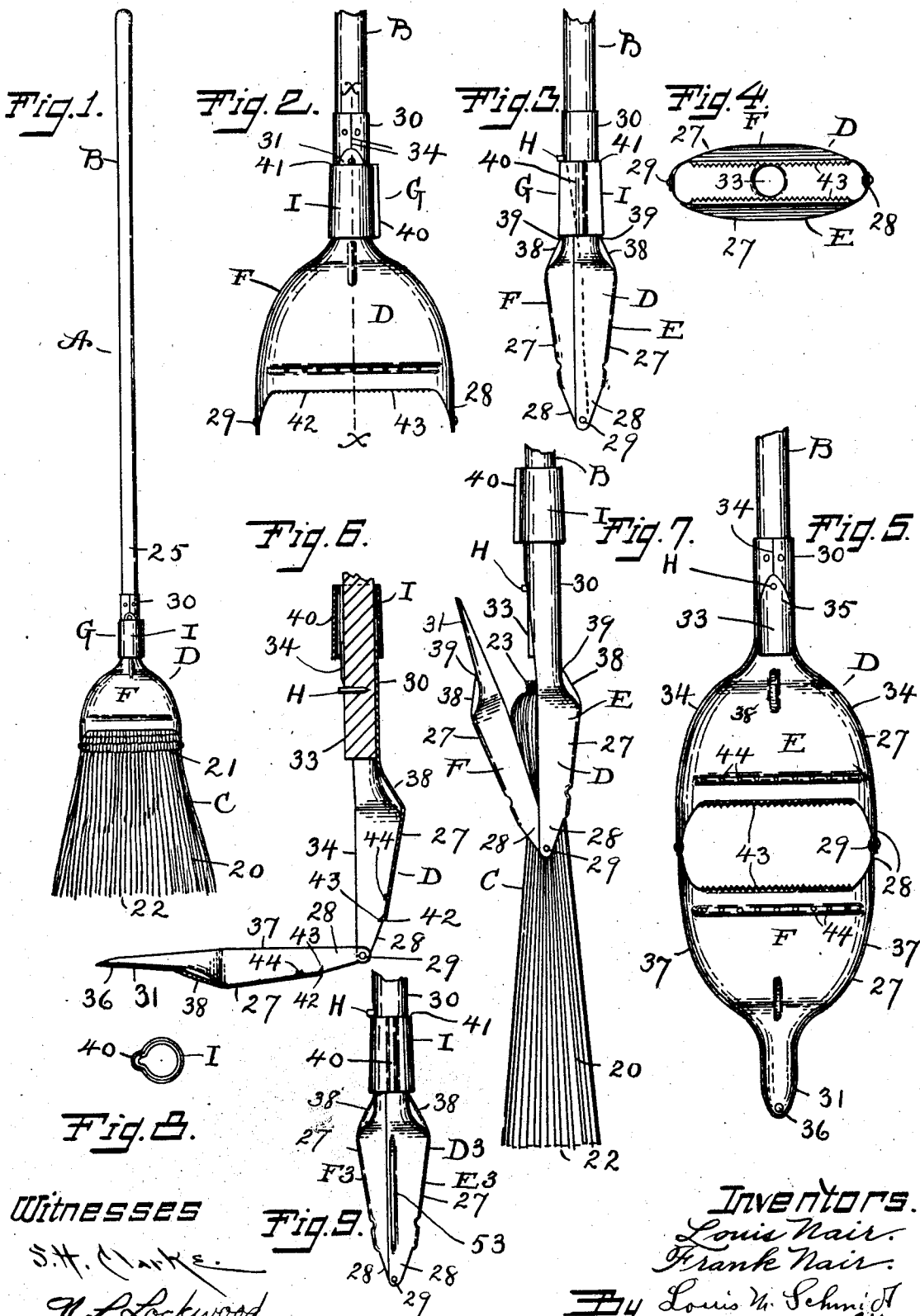


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BROOM.
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1,027,752.

Patented May 28, 1912.



Witnesses

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BROOM.

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To all whom it may concern:

Be it known that we, LOUIS NAIR, a citizen of Russia, and FRANK NAIR, a citizen of the United States, both residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Brooms, of which the following is a specification.

Our invention relates to improvements in brooms, and the objects of our improvements are to make a broom that has the body portion separable from the handle portion whereby the said body portions and handle portions may be replaced and interchanged whenever it is desired to do so, and to provide locking means that are simple and reliable.

In the accompanying drawings: Figure 1 is a side elevation of a broom embodying our invention. Fig. 2 is a similar view on an enlarged scale, of a part of the handle portion and the mechanism for securing the body portion. Fig. 3 is an end view of the same. Fig. 4 is a bottom view of the same. Fig. 5 is a side elevation of the same in the opened and extended position. Fig. 6 is a sectional view of the same on the line $x-x$ of Fig. 2, in open position. Fig. 7 is an end view of the same in partially opened position and with the broom body portion in position. Fig. 8 is a top view of the locking collar. Fig. 9 is a view similar to Fig. 3 of a modification of the broom body holding mechanism.

A is a broom complete and comprises a handle portion B and a body portion C and means or mechanism D for connecting the same, to be described. The said body portion C comprises the usual bundle or bunch of broom straws or strands 20 held together intermediate the ends by means of the usual cross-stitching 21, and has the usual fan-tail shape, the free outer ends 22 spread out laterally, because of brush formation or condition of the said free ends 22, and the inner ends 23 are relatively close together. The cross-section of the broom body at the stitching 21 is such that the sides along the line of the stitching are approximately parallel and the ends connecting the said sides rounded or convex.

The upper or inner ends are brought together and are grouped to form a body head of a more rounded shape of cross section as shown at 24 and of greater thickness than adjacent the said stitches 21, and the said

ends may be tied together for convenience in handling. The handle B is of usual form and at the inner or lower end is provided with the mechanism D mentioned for receiving and removably securing the said body portion C. The said mechanism D comprises a pair of pivotally connected shell members namely a fixed member E rigidly secured to the handle B and a movable member F, and locking mechanism G for securing the said shell members together and to the handle. The said shell members E and F comprise each a body portion 27 suitably formed to close together and cooperate with its mate to form a complete shell for housing the said broom body head 24, and arms 28 extending downwardly laterally from the shell body on each side pivotally connected at their ends by a pivot pin 29, and at the upper ends the said shell members are provided with neck members 30 and 31 that combine to form a slightly conical neck that is suitable for inclosing the lower end 33 of the handle B. The neck member 30 is part of the shell member E that is rigidly secured to the handle B and is an upward extension of the said body member, the lateral edges 34 meeting at the upper end so as to inclose the handle B, and below the said upper end receding from one another so as to leave a gap or open space 35 between the edges 34, exposing the lower end of the handle B, and the said neck member 30 is secured to the said lower end of the handle in an ordinary manner. The said neck member 31 on the moving shell member F fits the gap 35 and fills out the cylindrical or slightly conical form of the neck inclosing the handle B, and has a hole 36 that engages a pin H in the closed position.

As shown the movable shell member F has its arms 28 inward relatively to the arms 28 of the rigid or fixed member and the edges 37 of the movable member F close within the edges 34 of the rigid member below the neck portions 30 and 31. A rib 38 extends from the body portions 27, 27 to the neck portions 30 and 31 which serve to brace the same, and serve by their upper ends 39 to limit the downward movement of a sliding sleeve I of the locking mechanism G. The said locking pin H is fixed in the body of the handle B and in position to register with the said hole 36 in the moving shell member F. The said locking sleeve I is preferably slightly conical in shape to correspond to the

shape of the neck formed by the combined neck elements 30 and 31, and has a longitudinal rib 40 fitting over the said pin H and permitting a longitudinal movement back and forth from a position above the said pin to a position below the said pin, corresponding respectively to the unlocked and the locked positions of the said shell members E and F. The said locking sleeve I is of convenient length to be grasped by the hand and when in the locked position is turned so that the rib 40 is out of registration with the pin H and the upper edge 41 is engaged therewith and prevents backing off or disengaging of the locking mechanism. As described, the said lateral arms 28 extend below the lower edge 42 of the body portion 27 of the shell-like members E and F, whereby when in the closed position, the said edges 42 will close on the body portion C adjacent the stitching 21 and prevent the passage of the thicker head 24. In the opened position the said edges 42 will open away from one another and admit freely the said thicker head portion 24. We prefer to provide the said shell body portions E and F with teeth 43 along the said lower edge 42 and with a second row of teeth 44 separated therefrom by an appreciable distance, which teeth engage with the body portion C and prevent a tendency to twist or oscillate the same when in use.

The locking sleeve I is a generally cylindrical or slightly conical body of sheet metal and the longitudinal rib 40 projects above the general body surface of the sleeve I, whereby the said rib 40 serves on its inner side to permit the sleeve I to pass for its full length back and forth over the pin H in being changed from the closed to the open position or vice versa and at the same time serves on the outer side as a handle co-operative with the said general body surface for manipulating the said sleeve I, particularly in the turning movement in turning back and forth between the locked and unlocked positions.

The locking sleeve I serves to hold the shell members E and F in the closed position, and the pin H by reason of its engagement with the hole 36 in the moving shell member F serves to positively position the upper or free end of the moving shell member F relatively to the fixed shell member E and the handle B.

The shell members E and F described are made preferably of sheet metal.

In the modification shown in Fig. 9, a rib 53 extends along the lateral edge of the fixed or rigid shell member E³. As described, our broom body C is removably connected to the handle B in a reliable and efficient manner, whereby one handle may be used for a number of broom bodies of different qualities and characters of service and an old and worn out broom body may be replaced by one that is new and in good condition.

We claim as our invention:—

In a device of the character described, the combination of a handle, two shell members pivotally connected at their lower ends, and adapted to inclose and clamp the head of a broom body, and provided with neck portions at their upper ends to engage said handle, one of said neck portions being rigidly connected to said handle, and means to detachably connect the other neck portion to said handle comprising a pin in the handle and a sleeve adapted to slip over said neck portions, the movable neck portion being provided with an aperture to receive said pin, and said sleeve being approximately cylindrical and having a longitudinal hollow rib forming an inner groove extending from end to end of said sleeve adapted to pass over said pin, so that the sleeve may be turned to lock the parts in position.

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Witnesses:

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