This invention relates to a bracing means for the handles of push brooms and aims for its principal object to provide a brace which rigidly supports the handle and relieves the same of the major portion of the strains and stresses to which the handle is subjected during the brushing operation.

The invention furthermore comprehends a push broom handle brace having detachable and adjustable connection with the handle and broom head, whereby when the handle is shifted from one of its receiving sockets to the other, the brace is readily shiftable therewith.

The invention furthermore comprehends a handle brace for push brooms which is comparatively simple in its construction and mode of use, inexpensive to manufacture, and highly efficient in its purpose.

With the above recited and other objects in view, reference is had to the following specification and accompanying drawings in which there is exhibited one example or embodiment of the invention which is in no way intended as a limitation upon the scope of the appended claims as it is to be clearly understood that variations and modifications which properly fall within the scope of said claims may be resorted to when found expedient.

In the drawings—

Figure 1 is a perspective view of a push broom equipped with a handle brace constructed in accordance with the invention;

Fig. 2 is a fragmentary plan view illustrating the detachable connection between one of the brace members and the broom head;

Fig. 3 is a sectional view taken approximately on the line A—A of Fig. 2;

Fig. 4 is a sectional view taken approximately on the line 4—4 of Fig. 1, illustrating the attachable and adjustable connection between the arms of the handle.

The present invention has been particularly designed for use in connection with an adjustable broom of the type set forth in my prior United States Letters Patent No. 1,555,630, for push brooms of the type in which the heads are extremely long for covering a wide area during the brushing operation. In this type of brooms, it has been found that due to the strains and stresses imparted to the handle, some bracing means is needed to render the brooms more rigid and to relieve the handle of such strains and stresses.

In order to provide such means, the present invention comprehends a brace which consists of a pair of brace rods or arms 10, the upper terminals 11 of which are bent at the proper angle to extend through the aligned apertured ears 12 of the handle clamping elements 13, the said terminals being threaded at 14 to receive a pair of binding nuts 15 on the opposite sides of the ears of one clamping element and to receive detachable retaining nuts 16 on the extremities of the terminals 11, which extends through the apertures of the ears of the other clamping element. This detachably connects the upper ends of the brace rods or arms 10 to the handle A of the brush when the retaining nuts 16 are removed. This construction further admits of longitudinal adjustment limits upon loosening of the nuts 16, as will be hereinafter set forth.

In view of the fact that push brooms are provided with a pair of sockets B for the reception of the handle, which is secured on opposite sides of the head C of the broom, it is essential to provide means for readily detaching the opposite terminals of the brace rods or arms 10 from the head C. To allow for this, therefore, the present invention embodies the provision of angularly offset portions 17 at the lower end of the brace rods, which angularly offset portions are provided with right-angulantly bent terminals 18. The broom head C is formed with hooked elements 19, which, as illustrated, may consist in bending downwardly the ends of a cross bar 20 which is secured by screws or other fastening elements 21 to the upper face of the head. The depending bills 22 of the hooked elements 19 are disposed in spaced parallel relation to the side faces D of the broom head, said spacing being approximately equal to the diameter of the offset portions 17. Alongside of and parallel to the cross bar or hooked elements the upper face of the brush head is formed with a receiving recess 23 to snugly receive and accommodate the right-angulantly bent terminals 18. There are two pairs of hooked elements 19, one pair of which is disposed on each side of the brush head for the accommodation of the lower terminals of the brace rods to allow for the use of the
brace when the handle A is positioned in either receiving socket B.

What is claimed is:

1. Means for connecting and bracing push broom handles, comprising a pair of braces having offset portions terminating in right angular ends, means for detachably securing the braces to the handle, and a pair of hooked elements adapted to be secured to the brush head to extend in spaced relation to the sides of the head, the offset portions of the braces being adapted to be engaged by the hooked elements and their angular ends to overlie the top of the brush head.

2. In a broom of the character described, a handle, a head having recesses in its upper face at opposite sides of its center of length, a pair of braces having offset portions terminating in substantially right angular ends, means for securing the braces to the handle, and hooked elements secured to the head at the recesses thereof and extending down the sides of the head in spaced relation thereto, the elements being spaced from the sides of the head a distance approximately equal to the diameter of the offset portions of the braces, the offset portions of the braces being engaged by the hooked elements and their angular ends resting in the recesses of the head.

3. A broom of the character described, comprising a handle, a head having recesses in its upper face at opposite sides of its center of length, a pair of hooked members secured to the head at the recesses thereof and extending down the sides of the head in spaced relation to the sides, a pair of braces having angular threaded terminals at their upper ends and laterally offset lower portions engaged by the hooked elements and terminating in right angular ends resting in the recesses of the head, and means for detachably securing the braces to the handle, said means consisting of handle clamping elements having outwardly projecting apertured ears through which the threaded terminals of the braces pass, and retaining nuts on the said terminals.

RICHARD REES BROCK.