J. M. SPANGLER.

CARPET SWEEPER HANDLE ATTACHMENT.

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956,215. Patented Apr. 26, 1910.

Fig. 3.

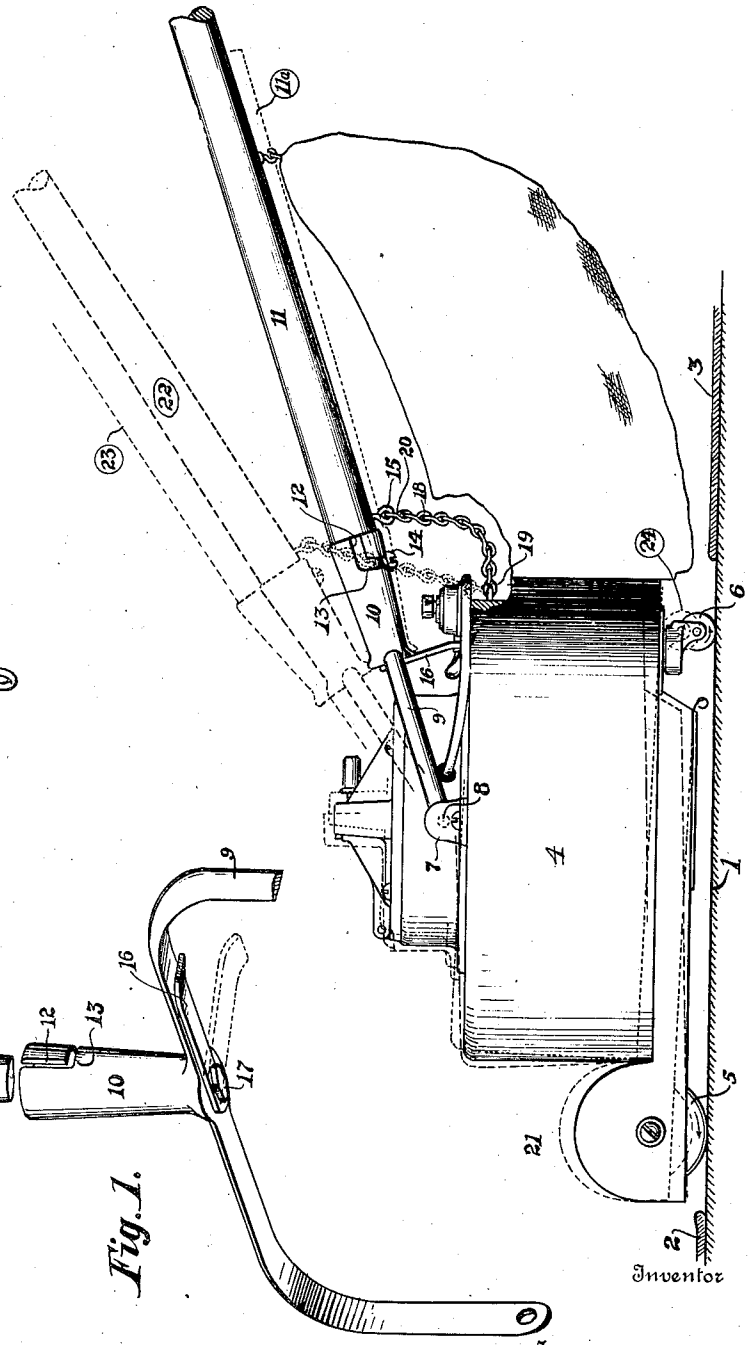
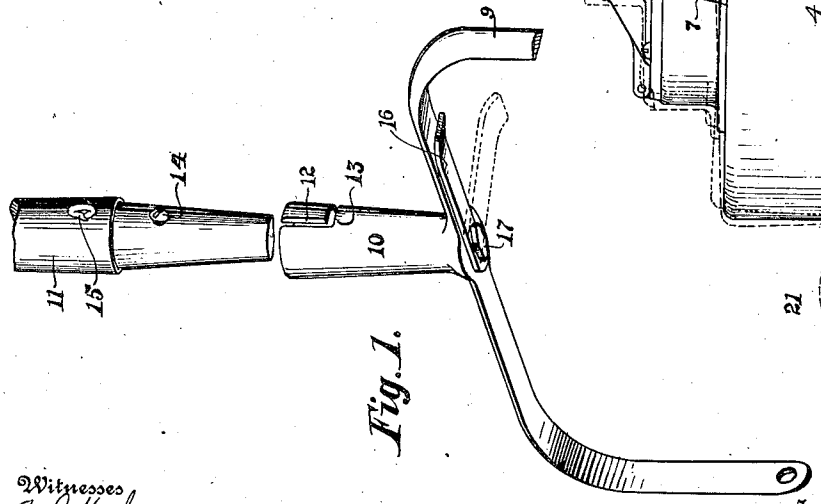


Fig. 2.

Fig. 1.



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UNITED STATES PATENT OFFICE.

JAMES M. SPANGLER, OF CANTON, OHIO.

CARPET-SWEEPER HANDLE ATTACHMENT.

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To all whom it may concern:

Be it known that I, JAMES M. SPANGLER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Carpet-Sweeper Handle Attachment, of which the following is a specification.

My invention relates to improvements in handle attachments for carpet sweepers and has special reference to such attachments for carpet sweepers which, because of their construction, are of considerable weight.

Many carpet sweepers employing electrically driven fans, brushes and the like are necessarily heavier than carpet sweepers in which such mechanical parts are not used and means for increasing the convenience of operation of such devices is of great importance.

The object of my improvement is to provide a handle attachment for carpet sweepers whereby the said sweepers may be easily and conveniently moved about upon floors and over carpets and rugs. I attain this object, together with other objects readily apparent to those skilled in the art, by the construction illustrated in the accompanying drawing, in which—

Figure 1 is an enlarged detached fragmentary view in perspective illustrating the handle yoke, a part of the wooden handle adapted to be fastened in the socket of the handle yoke, and showing in full and dotted lines the relative positions which the pivoted brace is adapted to assume. Fig. 2 is a fragmentary view of a portion of the chain used in the construction. Fig. 3 is a side elevation of a carpet sweeper embodying my improvement and illustrating in dotted lines the various movements and relative positions of the handle and sweeper.

Throughout the several views similar numerals of reference indicate similar parts.

The numeral 1 indicates a floor of ordinary construction.

2 and 3 are rugs or pieces of other floor covering laid upon the floor.

The numeral 4 indicates the carpet sweeper which is mounted upon front wheels such as 5 and upon a rear wheel or caster 6. The sweeper 4 is provided with suitable flanges 7 to which at 8 the handle yoke 9 is pivoted. Formed integrally with said handle yoke 9 is the socket 10 adapted for the reception of the end of the wooden handle 11. It will be understood that the handle yoke 9 by reason of its pivotal attachment to the flanges 7 is free to be raised or rocked into an upward position in the manner common in structures of this character.

The socket 10 is provided with the bayonet slot 12 extending from the end of said socket for a portion of its length and having a bend or turn, as illustrated at 13. The portion of the handle 11 adapted to enter the socket 10 is provided with the screw 14 which forms a headed lug adapted to enter the bayonet slot 12 for the purpose of holding the handle within the socket. The handle 11 is also provided with the screw eye 15 or its equivalent for the purpose hereinafter disclosed.

To the yoke 9 is pivotally connected the brace 16. The pivotal connection is accomplished by means of a headed machine screw or its equivalent, 17, extending through an aperture in the said brace and fastened to the yoke 9. The said pivotal attachment is so arranged as to permit the brace 16 to be moved upon it, but is so constructed as to produce sufficient friction so that the brace 16 will have a tendency to remain in any particular pivotal adjustment. In Fig. 1 the brace 16 is shown adjusted to a position parallel to the arms of the yoke 9 and in dotted lines in a position at right angles to said arms, which position is also shown in full lines in Fig. 3. The chain 18 or its equivalent is attached at the point 19 to the body of the sweeper and at the other end is provided with the hook 20 adapted to engage the eye 15.

Attention is now directed to Fig. 3. In said figure the brace 16 is shown at right angles to the arms of the yoke 9. In this position it engages the top of the sweeper 4, and with the points of attachment of the yoke 9 to the flanges 7 provides means whereby the operator may press down upon the handle 11, thereby rocking the sweeper upon the caster 6 and raising the forward end of the sweeper into the position illustrated by the dotted lines characterized by the reference numeral 21. In Fig. 3 if it were desired to move the sweeper from its position into a position on top of the rug 2 the handle 11 should be pressed down to the position illustrated at 11^a, raising the front end of the sweeper and the wheels 5 as just described. This feature is particularly convenient where the rug 2 is of considerable thickness or where it is provided with a heavy fringe.

The ease with which this may be done in the construction illustrated will be understood. In some cases it may be desired to have the brace 16 folded into the position illustrated in full lines in Fig. 1. If later it is desired to use the said brace in sweeping where the sweeper will at some times be upon the bare floor and some times upon rugs the brace 16 may be folded down or adjusted to the position illustrated in Fig. 3, when the said brace will be in position for use.

In some cases it may be desired to lift the back end of the sweeper, as for instance in moving from the position illustrated in Fig. 3 onto the rug 3 at the rear of the sweeper. To provide means for so lifting the rear of the sweeper I use the chain 18 heretofore mentioned. When not in use the hook 20 is disengaged from the eye 15 and the chain is allowed to hang idly from the point of attachment to the sweeper body. When it is desired to use said chain, the hook 20 is properly arranged within the eye 15. When the chain is so arranged and the handle 11 is raised into the position illustrated in dotted lines at 22 the chain is stretched taut and if the handle is then raised into the position illustrated in dotted lines at 23 the sweeper will be rocked upon the front wheels 5 raising the rear end of the sweeper and the caster 6 into the position shown in dotted lines and designated by the numeral 24. In this position it will be apparent that the sweeper may be readily moved onto the rug 3.

The range of adjustment of the handle 11 without affecting the horizontal position of the sweeper body will be readily understood from an inspection of Fig. 3 where it will be seen that the said handle 11 may assume any position between that shown in full lines and the position shown at 22, both inclusive without bringing either the brace 16 or the chain 18 into operation. The advantages of the pivotal connection of the handle to the sweeper are therefore in no wise reduced or diminished by reason of the additional features of the present invention. The brace 16 being arranged in position for use and the chain 18 attached to the handle by the engagement of the hook 20 and the eye 15 it will be understood that by raising the handle 11 or that by lowering the same the rear or the front of the sweeper may be very conveniently raised or lowered as described.

The purpose of the bayonet slot 12 is to permit the handle to be readily fastened to or detached from the socket 10. In many instances both in shipping the sweepers and in their daily use it is convenient to have the handle readily detachable. By turning the handle upon its principal axis for a short distance and pulling the same from the socket it will be entirely freed and by a reverse operation it may be readily attached to the sweeper.

It will thus be seen that by means of the construction illustrated and above described I have provided a device which is easily and cheaply manufactured, of great convenience and advantage in use and admirably adapted to accomplish the purposes for which it is intended.

I claim:—

1. In a device of the character described, a carpet sweeper, a handle yoke pivotally attached to said carpet sweeper, a handle connected to said handle yoke, a brace pivotally attached to said handle yoke and adapted for adjustment into a position to engage the carpet sweeper when the handle yoke is depressed, a chain attached to said carpet sweeper at one end and to said handle at the other end and adapted for permitting a limited upward pivotal movement of said handle with reference to said sweeper, whereby the said handle and handle yoke, if caused to move beyond the limits permitted by said brace and said chain, will life the front or the rear of the said sweeper respectively.

2. In a device of the character described, a carpet sweeper, a handle yoke pivoted to said carpet sweeper, said handle yoke provided with a handle socket having a bayonet slot arranged therein, a handle provided with an end adapted to enter said handle socket and having a lug adapted to enter said bayonet slot, limiting means pivotally attached to said handle yoke and adapted for adjustment into position to engage said carpet sweeper when said handle and handle yoke are depressed and flexible, detachable limiting means connecting said handle with said carpet sweeper and adapted to limit the upward pivotal movement of said handle, whereby the said carpet sweeper may be tilted by the movement of said handle beyond the limitation defined either by the said limiting means or by said flexible, detachable limiting means.

3. In a device of the character described, a carpet sweeper, a handle yoke pivotally connected to said carpet sweeper, a handle detachably connected to said handle yoke, said handle and handle yoke adapted for pivotal movement with reference to said carpet sweeper, and adjustable means for limiting said pivotal movement with reference to said carpet sweeper and for tilting or rocking said carpet sweeper when the said handle is moved beyond the said limitations.

4. In a device of the character described, a carpet sweeper, a handle yoke pivoted to said carpet sweeper, a handle attached to said handle yoke, and an adjustable brace pivoted to said handle yoke and adapted for adjustment into a position for engagement with said carpet sweeper when the said handle and handle yoke are depressed.

5. In a device of the character described a carpet sweeper, a handle yoke pivotally connected to said carpet sweeper, a handle attached to said handle yoke, an adjustable brace pivoted to said handle yoke and adapted for adjustment into a position to engage said carpet sweeper when the said handle and handle yoke are depressed for the purpose of lifting the forward end of said carpet sweeper, and separate detachable means for limiting the upward pivotal movement of said handle for the purpose of lifting the rear end of said carpet sweeper when the said handle is moved beyond the upward limitation defined by said detachable limiting means.

6. In a device of the character described, a carpet sweeper, a handle yoke pivoted to said carpet sweeper, a handle connected to said handle yoke, and flexible, detachable means connecting the said handle with the said carpet sweeper independently of said handle yoke, for the purpose of limiting the upward pivotal movement of said handle, whereby the said carpet sweeper may be tilted by the movement of said handle upwardly beyond the limitation defined by said limiting means.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JAMES M. SPANGLER.

Witnesses:
WILLIAM H. MILLER,
F. W. BOND.