

No. 822,631.

PATENTED JUNE 5, 1906.

H. W. RU TON.
CARPET SWEEPER.
APPLICATION FILED JULY 20, 1903.

Fig. 2.

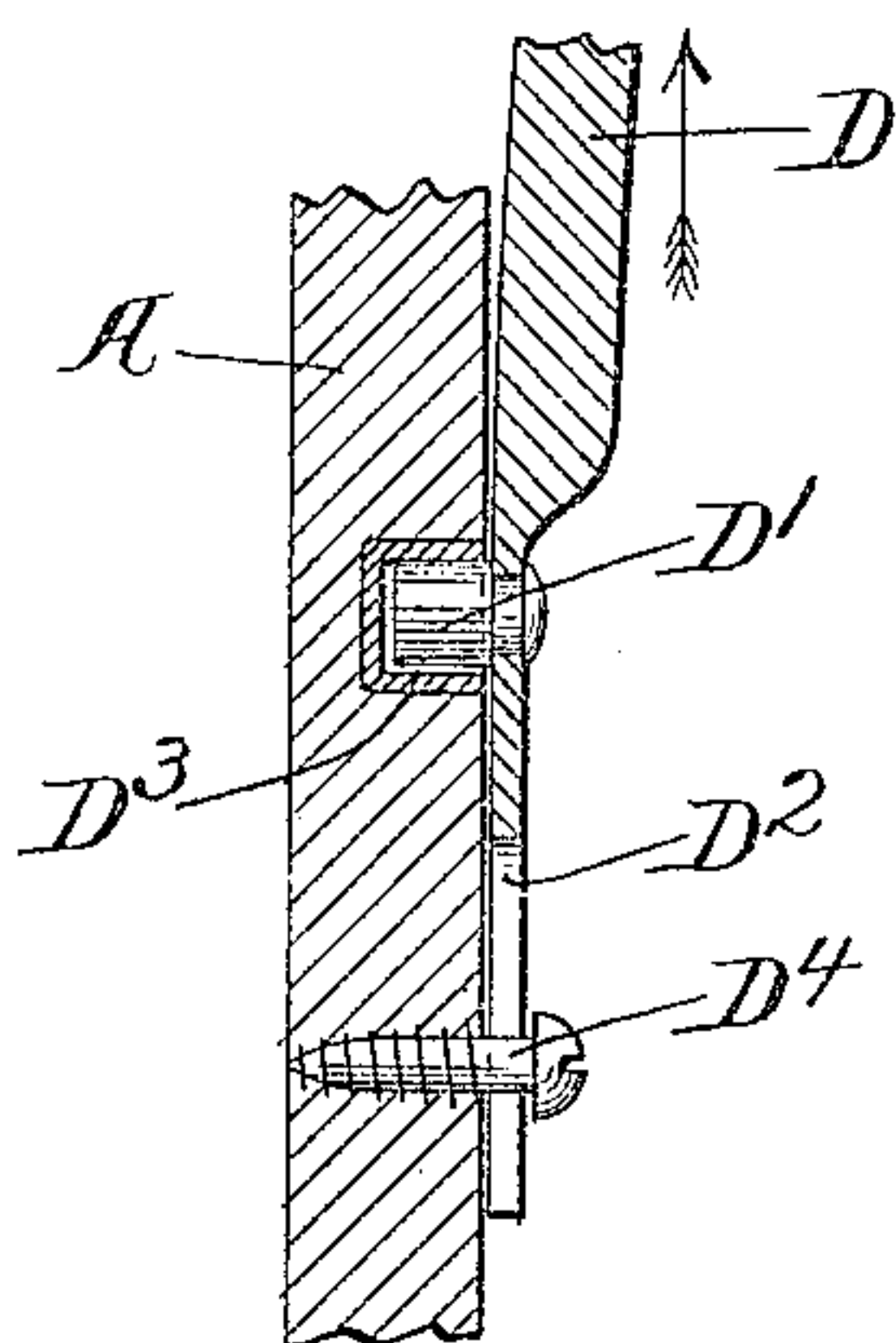
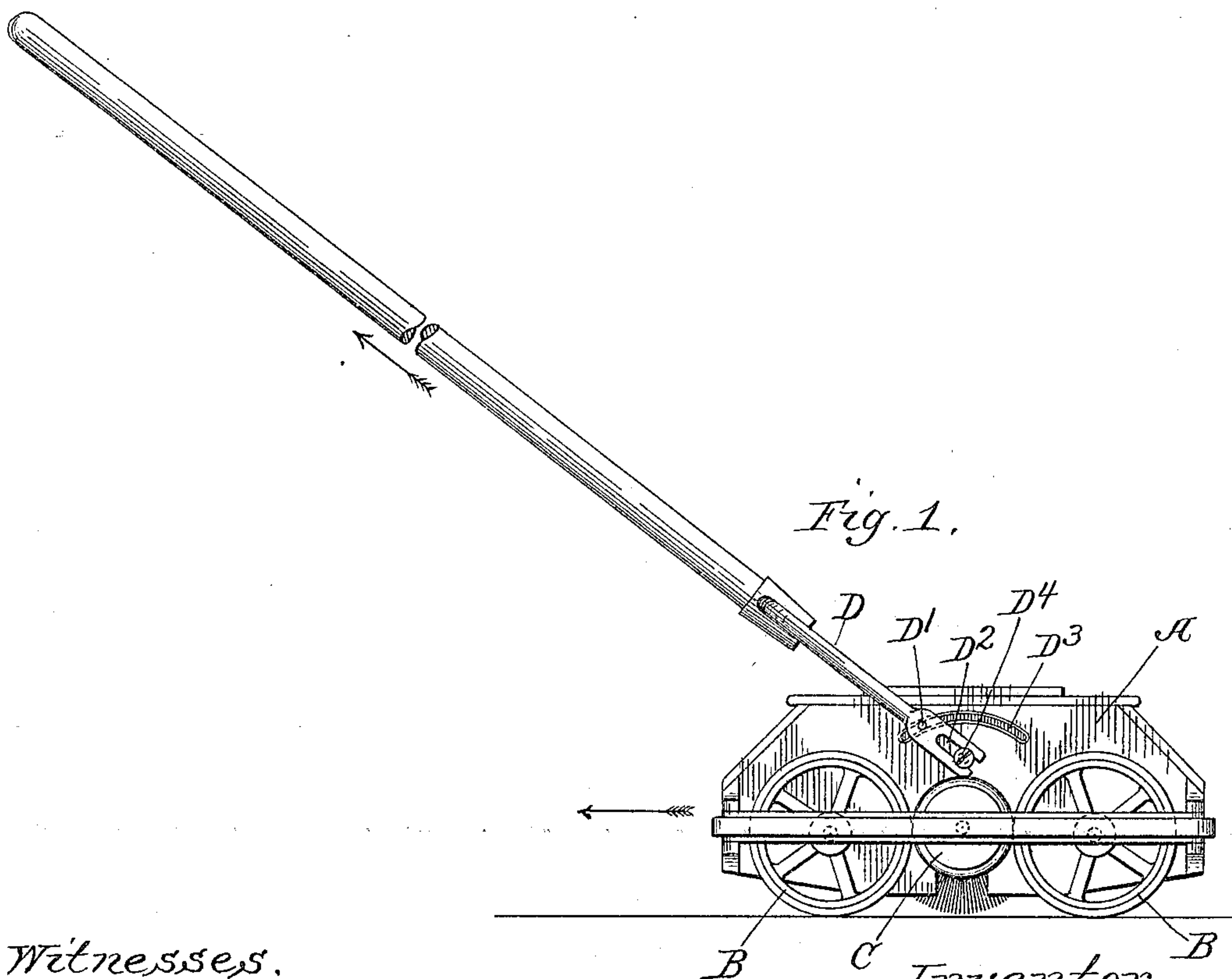
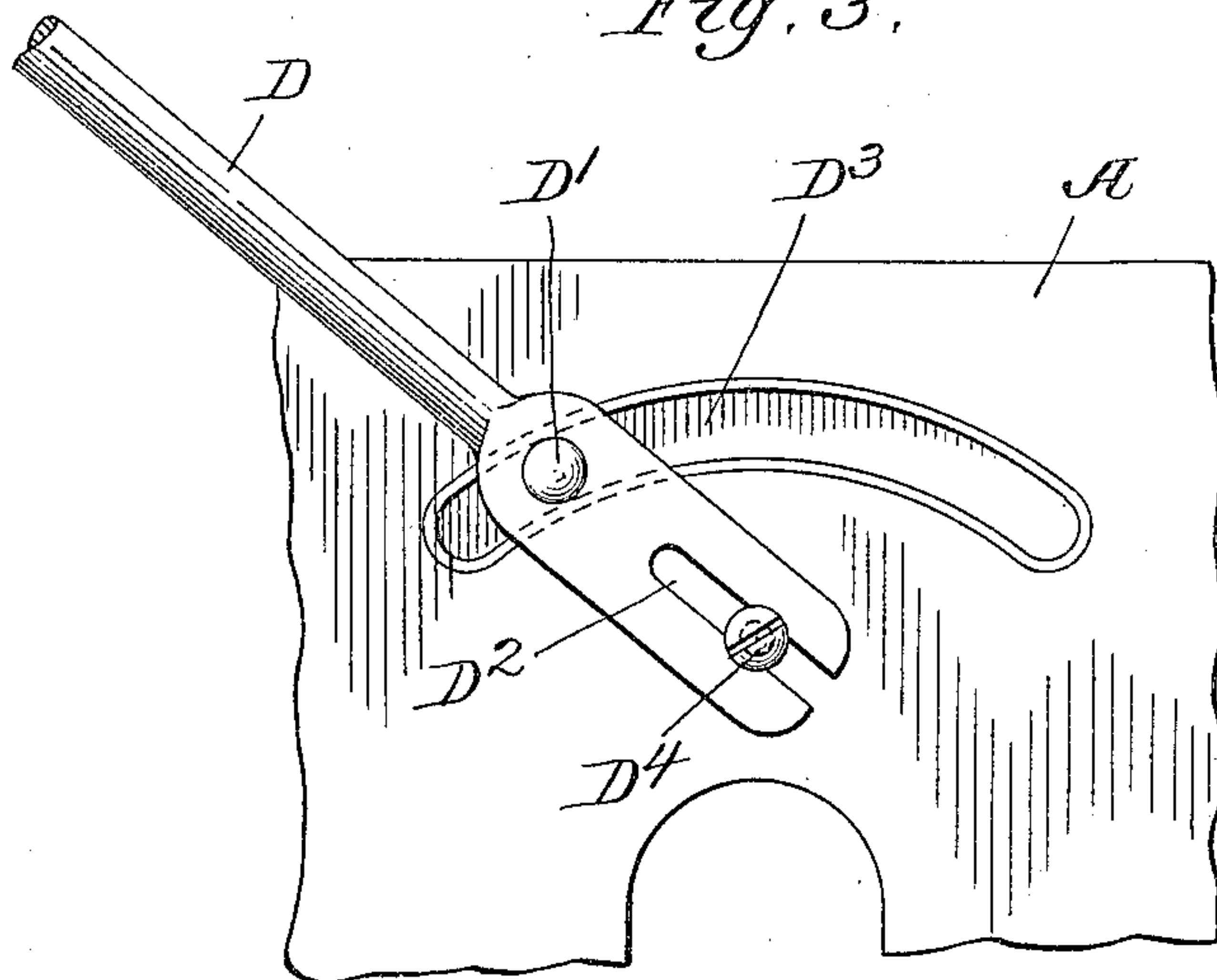


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

HIRAM W. RU TON, OF GOSHEN, INDIANA, ASSIGNOR TO PHILIP MATTER
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CARPET-SWEEPER.

No. 822,631.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HIRAM W. RU TON, a citizen of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have invented a certain new and useful Improvement in Carpet-Sweepers, of which the following is a specification.

My invention relates to carpet-sweepers, and has particularly for its object to provide improved means to prevent the carpet-sweeper from tilting or turning over on its back when it is pulled sharply toward the operator.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is an end view of the carpet-sweeper. Fig. 2 is a detail section through the lower end of a handle with associated parts. Fig. 3 is an enlarged diagram illustrating the action of the parts.

Like parts are indicated by the same letter in all figures.

A is the end of the case of the sweeper; B B, the wheels; C, the pulley on the end of the brush. These several parts are of any desired construction and arrangement.

D is the bail, which is provided below with an inwardly-projecting pin D' and with a bifurcated end D². The pin D' projects into a curved slot D³ in the end of the sweeper-case, while the bifurcated end receives the body of the screw D⁴, the head of which overlaps the end portion of the bail D.

I have used the same letter to designate all of the corresponding parts in all of the figures, the diagram as well as the others. It will be understood, of course, that I do not mean to limit myself to these particular elements shaped and arranged exactly as shown, but that my drawings are to be considered as merely illustrative of a form of device in which my invention is realized. Doubtless the invention can be realized with greatly differing forms, and hence I shall draw my claims with a view of such use.

The use and operation of my invention are as follows: With some carpet-sweepers, where the handle-bail is pivoted to the case, if the handle is inclined as shown in Figs. 1 and 2 and drawn sharply toward the operator, as indicated by the arrows, there is a well-recognized tendency of the carpet-sweeper to tilt

or turn over, the farther end rising. This, of course, is objectionable for many reasons. It is due to the fact that there is but one point of contact between the handle-bail and the case, at which point there must, of course, be a pivot, and therefore there is no tendency in the handle itself to resist this action. In my device I establish two points of contact between the handle-bail and the sweeper-case, and I arrange these two points so that they shall coöperate to resist this action. The curved or arc-shaped slot D³ is struck from a center other than that of the screw D⁴. In other words, it is a flatter arc than such as would be struck from the screw D⁴ as a center. If the arc D³ were concentric with the screw D⁴, the pin D' and slot D³ would not coöperate to produce any useful result, and this I say to illustrate the necessity of a proper relation between these several parts in the particular form in which I have illustrated my invention. If with the construction here shown the sweeper be drawn swiftly toward the operator, the tendency to tilt or turn over will be resisted, as indicated in the diagram. The sweeper to turn over must rotate on the pivot D⁴, and to do this the pin D' must rotate in an arc concentric with D⁴, whereas it is fitted in a slot not so concentric. Hence it bears against the upper part of the slot D³ and resists the tendency of the sweeper to turn over, for to turn over the sweeper must turn upwardly toward the operator, and therefore the handle must be pushed downwardly toward the pivot D⁴. The slot D³ will be made of such a shape as to prevent such turning over. To permit the handle, however, to move into its several positions, the connection between the handle-bail and the pivot D⁴ is a sliding connection. The overhanging head of the screw D⁴ holds the handle-bail to the case, for while the pin D' not only coöperates with the slot to resist the tendency of the device to tilt or turn over it also prevents too great endwise motion of the bail.

I call the connection between the case and the handle-bail made, for example, by the screw D⁴ a "pivotal" connection and the connection made between the handle-bail and the case by the pin D' and the slot D³ a "resistance" connection, meaning thereby to in-

dicates a connection which resists the tendency of the parts to rotate on the pivotal connection.

In describing the device and in claiming it I have kept in mind one end of the carpet-sweeper for the most part; but of course it will be understood that the parts will be commonly duplicated at both ends, although this is not necessary.

It will be seen that my invention comprises a carpet-sweeper wherein the handle device has a swinging connection with the case which permits the handle device to swing from one side to the other and that this swinging connection between the handle device and the case is free to be varied in the direction of the length of the handle device, there being a second connection between the handle device and the case located above said swinging connection for limiting the variation thereof to prevent the disconnection of said swinging connection when the handle device is swung from one side of the case to the other or during the normal operation of the sweeper.

I claim—

1. In a carpet-sweeper the combination of a case with a handle and bail, the bail and case being connected at each end by two pivotal and sliding connections.

2. In a carpet-sweeper the combination of a case with a handle and bail, the bail and case being slotted and being connected at each end by two connections, one of which consists of a pin on the case extending into the slot in the bail, the other a pin on the bail extending into the slot in the case.

3. In a carpet-sweeper the combination of a case with a handle and bail, the case being provided with a slot at each end and the bail with a pin to project into said slot at each end, and a pivotal and sliding connection between the bail and case at each end, said slot being not concentric with the pivot-point of the pivotal and sliding connection.

4. In a carpet-sweeper the combination of a case having a projection on each end, a handle, a bail provided with slots in its ends to receive such projections, thus forming a sliding and pivotal connection between the bail and case, and a second connection between the bail and case to limit the sliding movement of the bail.

5. In a carpet-sweeper the combination of a case having a projection on each end, a handle, a bail provided with slots in its ends to receive such projections, thus forming a sliding and pivotal connection between the bail and case, and means for limiting the sliding movement of the bail, said means comprising a pin on the bail and a bearing for said pin not concentric with the projection from the case.

6. In a carpet-sweeper the combination of a case having a pin at each end, with a handle, a bail provided with slots in its ends to receive said pins thus forming a sliding and pivotal connection between the bail and case, and a pin on each end of the bail above the slot in the bail, the case being provided with a slot at each end to receive such pin, said slot being struck from a center below the pin on the case.

7. In a carpet-sweeper the combination of a case with a handle and a bail, the bail being connected at each end with the case by two connections, one of which comprises a pin and a bearing for such pin, and the other an engaging part and a bearing therefor, such bearing being formed by a slot in one of the parts connected, which slot is not concentric with the pivot of the first connection.

8. In a carpet-sweeper, the combination of a case with a handle and bail, the bail being connected at each end with the case by two connections, one of which comprises a pin and a bearing for such pin, and the other an engaging part and a bearing for such part, such bearing being formed by a slot in one of the parts connected, which slot is above and not concentric with the pin.

9. A carpet-sweeper comprising a case, a handle device associated therewith, a pivot on said case engaging said handle device and about which it swings when passing from one side of the case to the other, said handle device being capable of sliding along said pivot, and means for limiting the sliding movement between the handle device and the pivot to prevent them from being disengaged during the normal operation of the sweeper.

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