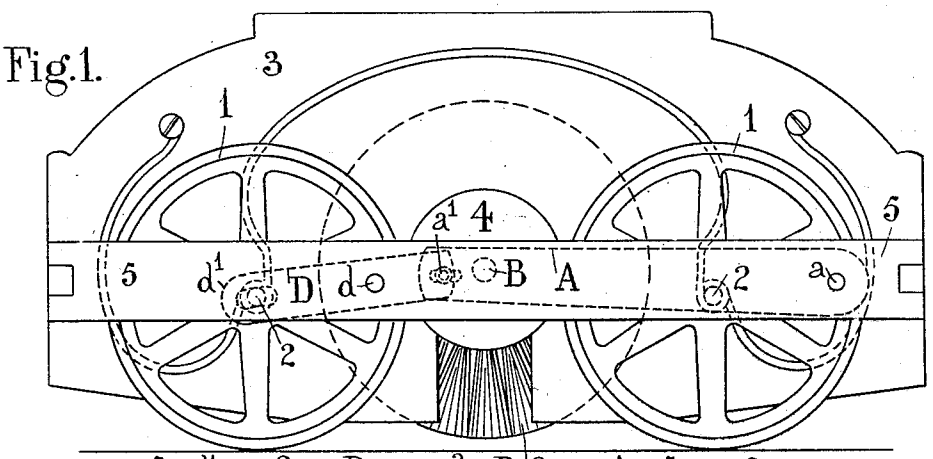
Sept. 27, 1932. W. H. KENYON 1,879,752

CARPET SWEEPER

Filed May 16, 1931 2 Sheets-Sheet 1

Fig.1.



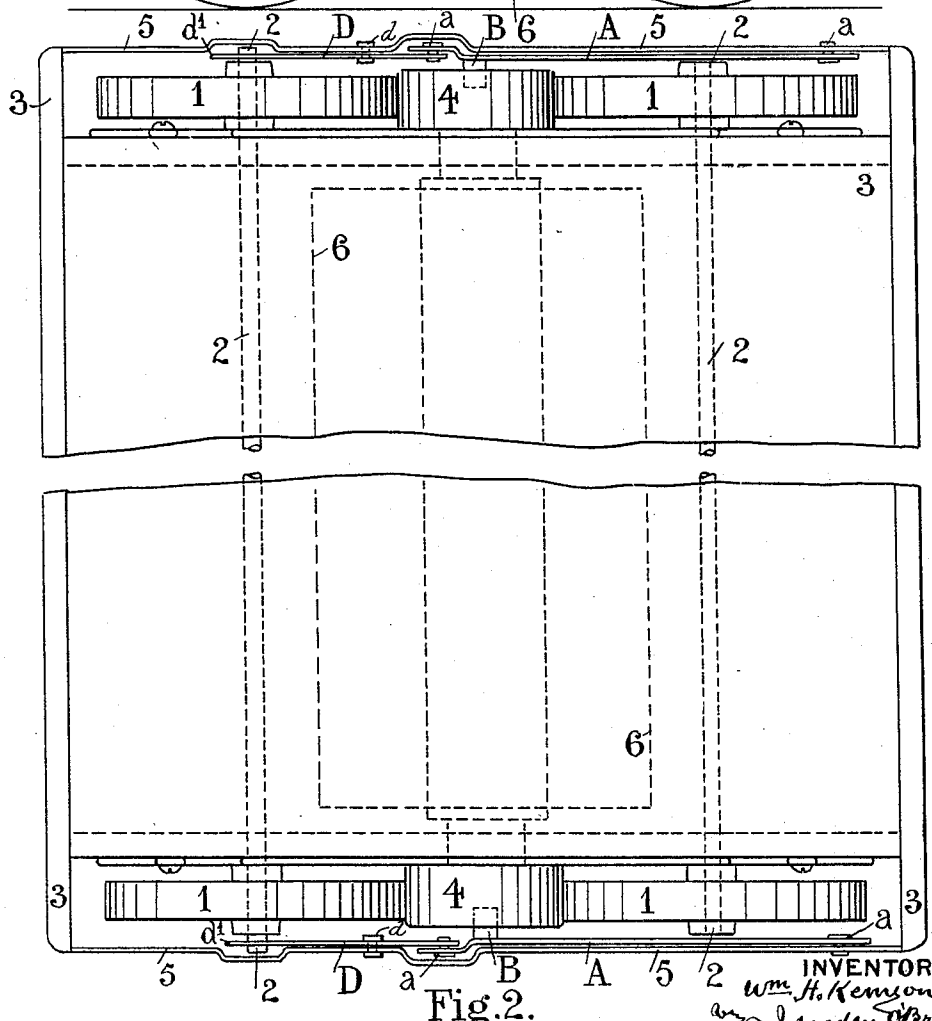


Fig.2.

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CARPET SWEEPER

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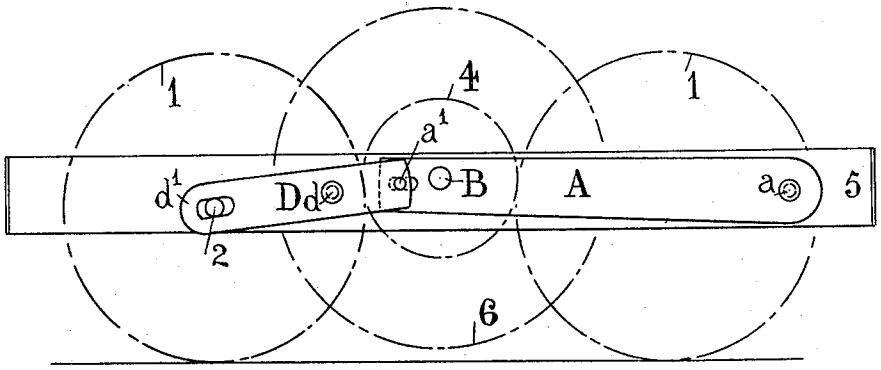


Fig.3.

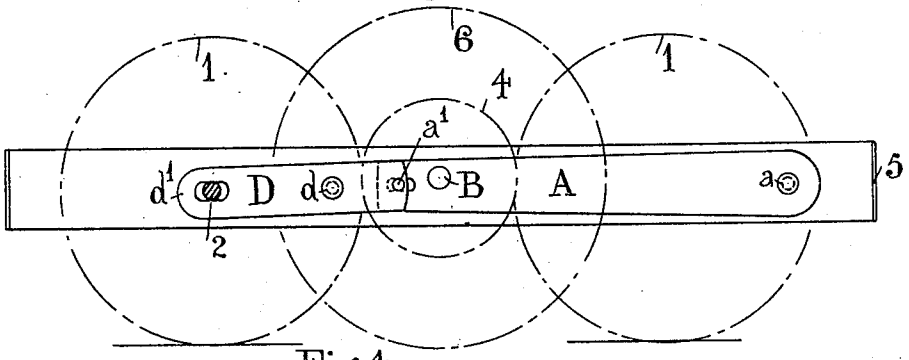


Fig.4.

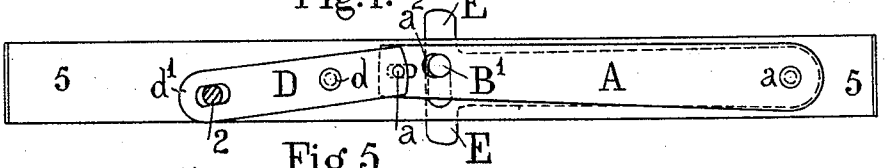


Fig.5.

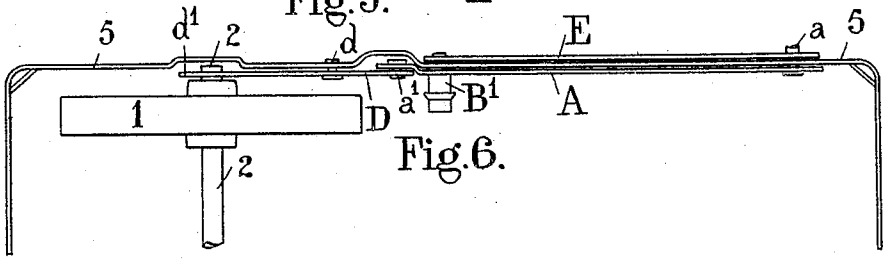


Fig.6.

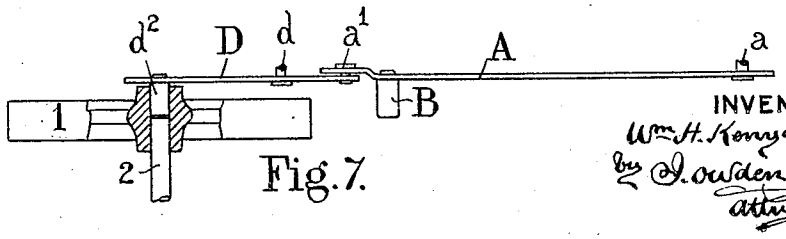


Fig.7.

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Patented Sept. 27, 1932 1,879,752

UNITED STATES PATENT OFFICE

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CARPET SWEEPER

Application filed May 16, 1931, Serial No. 537,785, and in Great Britain March 7, 1931.

This invention relates to the brush drive mechanism of carpet sweepers of the type in which the brush is mounted on pivots or studs carried by fulcrumed levers and adapted to move relatively to the end irons, instead of being mounted on pivots or studs affixed to the end irons, whereby an upward movement of the wheels relative to the sweeper case causes a downward movement of the brush.

In such construction it has been proposed to journal the brush carrier pivot or stud in the superimposed ends of two levers each centrally slotted and symmetrically pivoted to the end iron in respect to the brush axis.

The invention (for each end of the sweeper and brush) comprises an end iron, a brush control lever pivoted thereto by the end remote from the brush axis and at the other end carrying or controlling the brush stud, an operating lever centrally pivoted to the end iron at the opposite side of the brush axis one end of which is engaged by the wheel axle or hub and the other end engages the free end of the control lever whereby the upward movement of one wheel axle in relation to the sweeper case causes a corresponding downward movement of the brush stud and brush.

The invention may also comprise a spring lever to which the brush stud is affixed to permit of the stud being readily withdrawn from its bearing in the brush end, the stud passing freely through a slot in the end iron and into a hole in the control lever.

The invention will be fully described with reference to the accompanying drawings:—

Fig. 1 is an end elevation of carpet sweeper showing the improved brush drive mechanism applied thereto.

Fig. 2 is a plan of same.

Fig. 3 is a diagrammatic view of the invention viewed from the inside of the end iron 5 with brush 6 raised in normal out of use position.

Fig. 4 is a similar view with brush 6 lowered into sweeping position.

Fig. 5 is a similar view of another form of the invention showing the additional spring lever E to carry the brush stud B^1.

Fig. 6 is a plan of Fig. 5.

Fig. 7 is a plan showing a further modification.

The carpet sweeper is of known type with wheels 1 mounted on spring controlled axles 2 which permit of movement of the wheels and axles relative to the sweeper case 3 and brush pulley 4 end irons 5 and brush studs upon which a brush 6 is mounted between the axles 2 being driven by the wheels 1 as they rotate engaging pulleys 4 on the brush ends.

To the end iron 5 at one side of the brush axis a brush control lever A is pivoted at *a* by its end remote from the brush axis and at its near end carries or controls the brush stud B. The brush stud B may be affixed to the control lever A or pass through it, in either case to be moved up or down by the movement of the free end of the control lever A.

To the end iron 5 at the opposite side of the brush axis an operating lever D is centrally pivoted at *d* the end d^1 of which remote from the brush axis engages with or is connected to the end of the adjacent axle 2 or wheel centre. The end of the axle 2 projects into a slot in the end of the lever D.

The adjacent ends of the brush control lever A and the operating lever D are linked or pivoted together by a pin a^1 whereby the movement of the operating lever D is transmitted to the lever A and brush stud B.

In the form shown in Figs. 1 to 4 the brush stud B is riveted to the brush control lever A and forms an integral part with it.

In the form shown in Figs. 5 and 6 the brush control lever A and the operating lever D are pivoted to the end iron 5 as previously described. The brush control lever A is provided with a hole a^2 through which the brush

stud B^1 projects and a third lever E, corresponding approximately in length and radius to the lever A, is pivoted to the outside of the end iron 5. The brush stud B^1 is riveted to the free end of the lever E and passes through a slot in the end iron and through the hole a^2 in the brush control lever A.

The lever E is preferably made of spring steel or is spring controlled to permit of the brush stud B^1 being easily and readily withdrawn from the bearing or socket in the end of the brush.

In the form shown in Fig. 7 the operating lever D connects with the wheel axle by means of a pin d^2 projecting into the wheel boss.

In operation when the wheel 1 and wheel axle 2 are moved in relation to the sweeper case as the case is pressed downward and moved toward the floor the operating lever D is rocked on its fulcrum and a corresponding and additional downward movement is imparted to the end of the brush control lever A and to the brush stud B in relation to the case. In the form shown in Figs. 5 and 6 the levers A and E move synchronously as the lever E is moved by the pressure of the lever A upon the brush stud B^1 which projects through it.

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

1. In a carpet sweeper the combination of an end iron, a brush control lever pivoted to the end iron at its extreme end remote from the brush axis and clear of the wheel axle, a brush stud riveted thereto at the free end, an operating lever centrally pivoted to the end-iron at the opposite side of the brush axis, one end of said control lever engaged by the opposite wheel axle and the other end in pivotal engagement with the free end of the said brush control lever whereby the upward movement of said second wheel axle in relation to the sweeper case causes a corresponding downward movement of the brush stud and brush.

2. A carpet sweeper comprising in its construction a sweeper case, floor wheels, end-irons and a brush driven from the floor wheels, having at each end of the case a brush control lever pivoted by its extreme end remote from the brush axis to the end-iron and at the free end controlling a brush stud, an operating lever pivoted about its centre on the opposite side of the brush axis to the end-iron and at its free end pivotally connected with the free end of the control lever and means to connect it with the wheel axle through which the relative movement of the wheels is imparted to the brush.

3. A carpet sweeper comprising in its construction a sweeper case, floor wheels, end irons and a brush driven from the floor wheels, having at each end of the case a brush control lever pivoted by one end to the end iron and at the other end controlling a brush stud, an operating lever centrally pivoted to the end iron and pivotally connected with the control lever, means to connect it with the wheel axis, a third spring lever corresponding to the control lever pivoted to the end iron and a brush stud riveted thereto and passing through a slot in the end iron and a hole in the control lever substantially as described.

In testimony whereof I have hereunto set my hand this 2nd day of May, 1931.

WILLIAM HENRY KENYON.