

May 31, 1927.

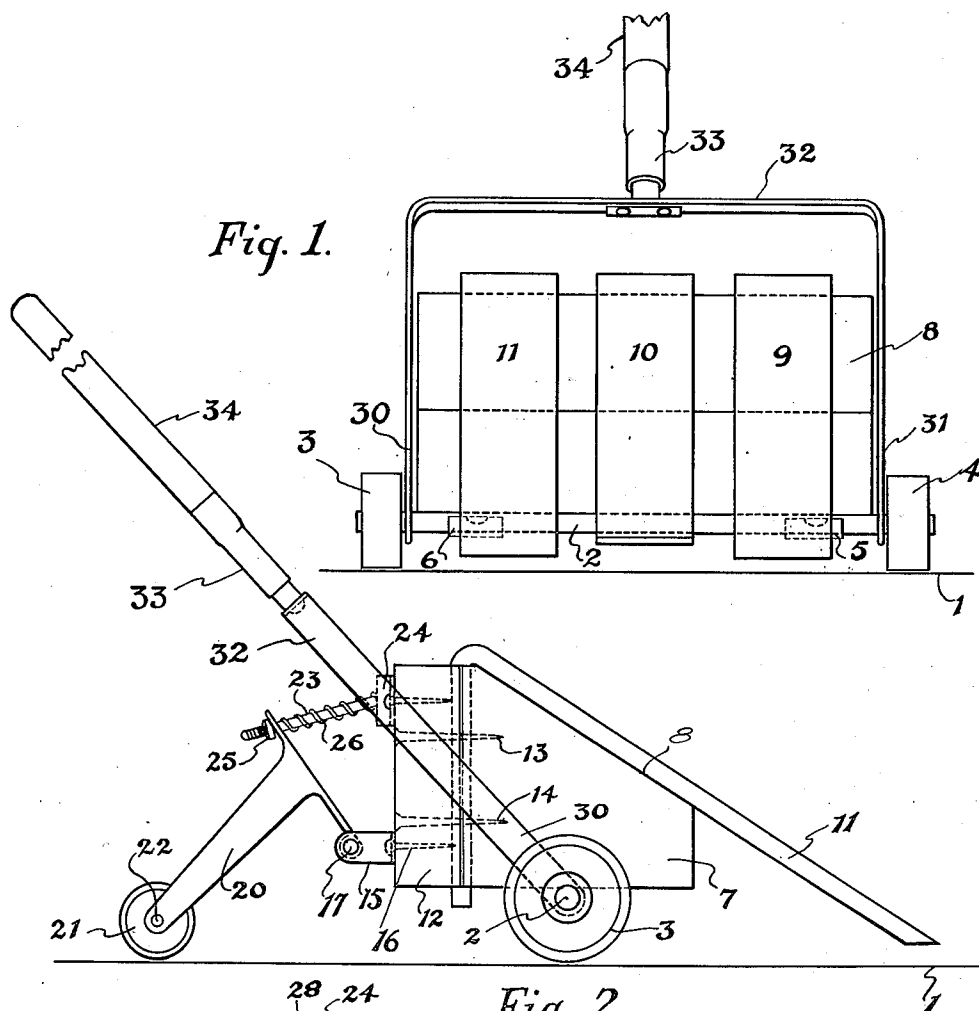
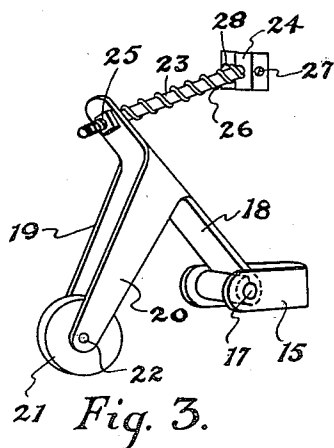
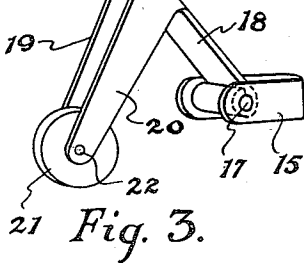
1,630,987

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MAGNETIC SWEEPER

Filed April 24, 1926

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

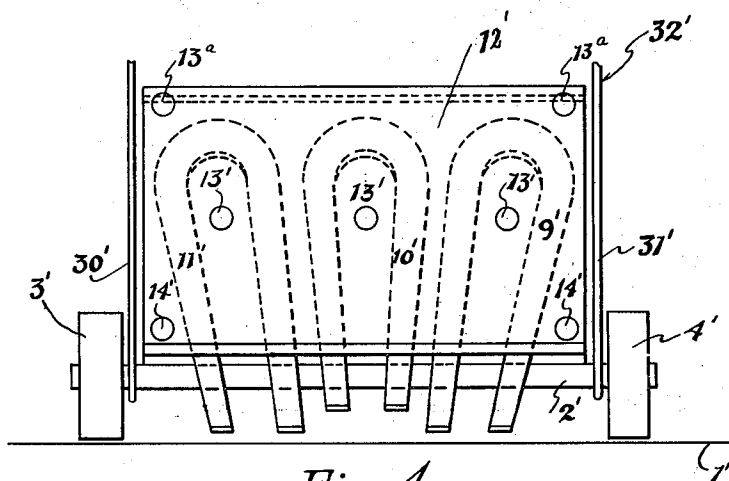


Fig. 4.

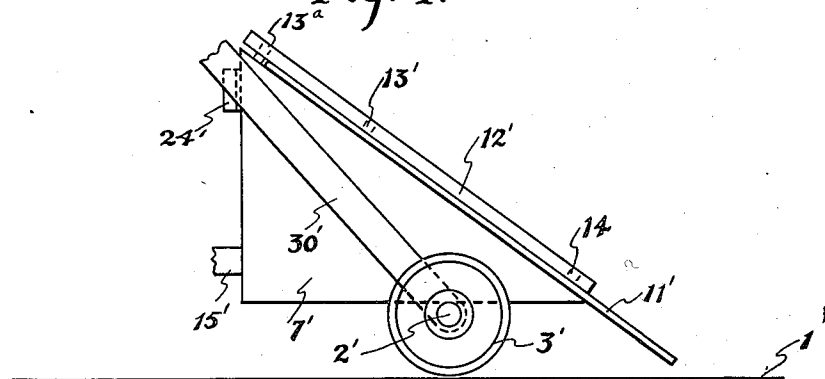


Fig. 5.

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UNITED STATES PATENT OFFICE.

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MAGNETIC SWEEPER.

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Heretofore housewives have experienced great inconvenience in operating vacuum sweepers for cleaning floors, rugs, carpets, and other articles, due to the fact that the vacuum sweeper will draw up metallic objects such as hair pins, pins, tacks, and other similar articles, and said articles would penetrate the vacuum bag in the sweeper and cut holes therein, and thus render the sweeper useless until repaired.

My invention is designed to cure this inconvenience thus experienced by housewives, and to provide a device for passing over the floors of the different rooms before the vacuum sweeper is used, thus picking up all of the metallic objects which are capable of being attracted by a magnet, thus insuring that the vacuum sweeper will be protected against injury when the sweeping operation begins.

I have so constructed my magnetic sweeper that it may be adjusted at any desired height from the floor, and have also provided magnets of different lengths so that both large and small metallic objects may be picked up and retained by the same.

My invention relates to a device for removing metallic objects from floors and carpets, and more especially to a wheeled device equipped with magnets, said magnets acting to attract certain metallic objects scattered over floors and other surfaces.

Another object of my invention is to provide a device for picking up tacks and other objects from the floors of a house, said device being capable of adjustment to regulate the height of the device from the floor.

Another object of my invention is to mount a magnet or plurality of magnets on a wheeled frame in such a manner to render the magnets capable of attracting certain metallic objects as the wheeled frame is rolled over a floor or other surface.

Having thus stated some of the objects of my invention, other objects will appear as the description proceeds.

A brief description of the figures in the drawings will now be given, in which—

Figure 1 is a front elevation of my device, with the handle broken away;

Figure 2 is a side elevation of my device with the handle broken away;

Figure 3 is a perspective view of the means for adjusting the height of the forward portions of the magnets;

Figure 4 is a front elevation of a modification, showing a different type of magnet;

Figure 5 is a side elevation of a modification of my invention, as shown in Figure 4, with the rear portion thereof broken away.

Having briefly described the different figures in the drawings, a detailed description of the drawings will be given, in which like reference characters indicate corresponding parts throughout the drawings.

The numeral 1 indicates the floor or other surface on which my device is adapted to be used. My magnetic sweeper has the axle 2, upon the ends of which are rotatably mounted the wheels 3 and 4. The block member 7 is secured to the axle by means of cuffs 5 and 6. This block member 7 has a forwardly inclined surface 8, while the rear face of the block member is approximately vertical. This rear vertical surface has a plurality of grooves therein for the reception of the vertical portions of the magnets 9, 10 and 11.

To the rear vertical face of the block member 7 there is secured the block 12 which has the same length and breadth as the rear vertical portion of the block member 7. This block 12 has vertical grooves in its forward face portion, which grooves are of the same breadth as the grooves in the block member 7, and register therewith, and serve to receive the vertical portions of the magnets 9, 10 and 11. This block 12 is secured to the block member 7 by any suitable means, such as screws 13 and 14, shown in dotted lines in Figure 2. When this block 12 is thus secured it holds the magnets 9, 10 and 11 in a secure position.

To the rear face of the block 12 there is secured the means for adjusting the distance between the forward ends of the magnets and the floor or other surface on which the magnetic sweeper is operated. This adjusting means comprises a U-shaped member 15 secured to the lower rear portion of the block 12 by any suitable means, such as the screw 16. In the open end of this U-shaped member there is secured a pivot bolt 17 around which is rolled the lower end of the member 18, which has downwardly and rearwardly projecting portions 19 and 20, and between the lower ends of these members 19 and 20 there is rotatably secured the wheel 21, on the bolt 22. The member 18 projects upwardly from where the portions 19 and

20 emanate, and this upper portion has a hole therein for the reception of the end of the threaded bolt 23. The forward end of this threaded bolt 23 has a head thereon
 5 which is loosely mounted between the cuff 24 and the block 12. This cuff 24 is secured to the block 24 by any suitable means such as the screws 27 and 28, and has a hole therein thru which the bolt 23 passes. The rear
 10 end of this bolt 23 has a nut 25 thereon, and around the bolt 23, and located between the cuff 24 and the upper portion of the member 18, is a coiled spring 26, this being a compression spring, which normally forces the
 15 member 18 rearwardly against the nut 25.

Secured to the axle 2 at points located between the ends of the block member 7 and the wheels 3 and 4, are the ends 30 and 31 of the U-shaped member 32. Near the central
 20 portion of the base of this U-shaped member 32 is secured the socket member 33 for the reception of the handle 34.

The magnet 10 is somewhat shorter than the other magnets, which allows larger metallic objects to cling to it, while the smaller
 25 objects will be collected and held by the longer magnets 9 and 11.

In Figures 4 and 5 I have shown a slightly modified form of my invention in which I
 30 use a different type of magnet, commonly known as the horse shoe magnet. The type of magnets used in Figures 1 and 2 is in the shape of the hypotenuse and shorter leg of a right angle triangle.

In the modified form shown in Figures 4 and 5 I have a plurality of magnets 9', 10' and 11' mounted on the forwardly sloping
 35 surface of the block 7', and on top of these magnets I have a board 12' secured to the block 7' by means of screws 13', 14' and 13".

The central magnet 10' is of shorter length than the others for the same reasons as previously described for the form shown in
 40 Figures 1 and 2.

The axle, wheels, handle, adjusting means, and other parts of the modification are the same as in the form shown in Figures 1 and 2, except that the adjusting means already
 45 described are secured directly to the rear portion of the block 7', these parts being numbered 3' and 4' for the wheels, the axle 2', the cuffs 15' and 24', and the ends 30' and 31' of the U-shaped member 32'.

I desire it to be understood that although
 55 I have described my device throughout this specification as having a plurality of magnets, that I may have only one magnet mounted on the framework to perform the work performed by the plurality shown and
 60 described.

My device is operated by pushing the same over the floor, carpet or other desired surface. When it is desired to raise or lower
 65 the forward ends of the magnets so the space between the floor and the same will be lesser

or greater, the nut 25 is turned on the bolt 23, and the center of gravity being to the rear of the axle, the adjustment will take place due to the action of the compression
 70 spring 26. When the desired adjustment is obtained the device will be pushed over the floor or other surface and the metallic objects capable of being attracted by a magnet will be drawn from the floor and will
 75 attach themselves to the magnets and will remain there until the sweeping operation is completed, when they may be removed and the vacuum sweeper may be run over the surface without injury to the same.

Having thus described one illustrative embodiment of my invention, I desire it to be
 80 understood that although specific terms are employed, they are used in a generic and descriptive sense and not for purposes of limitation, the scope of the invention being
 85 set forth in the appended claims.

I claim:

1. In a device for collecting metallic objects from floors, a framework, wheels adapted
 90 to roll on the floor for mounting the framework, a plurality of magnets mounted on the framework, and means for adjusting the angularity of the framework with relation to the floor or other surface on which
 95 the device is used.

2. In a device for collecting metallic objects from floors, a framework mounted on
 100 wheels, said wheels being adapted to roll on the floor, a magnet mounted on the framework, and means for adjusting the angularity of the framework with relation to the flat surface on which the device is adapted to be used.

3. In a device of the kind described, an axle, wheels on the axle, a block mounted on
 105 the axle, an adjustable wheel secured to the rear of the block, a magnet mounted on the block, the adjustable wheel being adapted to regulate the elevation of the forward portion of the magnet.

4. In a device of the kind described, an axle, wheels on the axle, a framework mounted
 110 on the axle, an adjustable wheel for adjusting the elevation of the rear portion of the framework, a plurality of magnets mounted on the framework, said magnets having their forward portions located in close proximity with the surface on which the
 115 wheels are adapted to rest.

5. In a device of the kind described, an axle, a block member of approximately triangular cross-section secured to the axle and
 120 having an upper forwardly sloping surface, a plurality of magnets mounted on the said sloping surface, means located at the rear of the said block member for adjusting the height of the forward portions of the magnets from the surface on which the device
 125 is adapted to operate.

6. In a device of the kind described, an

axle having wheels mounted on its ends, a block member secured to the upper portion of the axle, a plurality of magnets mounted on the block member and having their forward portions projecting forwardly of the block member, a rearwardly extending bracket pivotally and adjustably secured to the rear portion of the block member, a U-shaped member having its ends secured to the axle, a socket secured to the central portion of the U-shaped member, said socket having a handle mounted therein. 10

In testimony that I claim the foregoing as my own, I have signed my name to this specification.

FANNIE LITTLE TURNER.