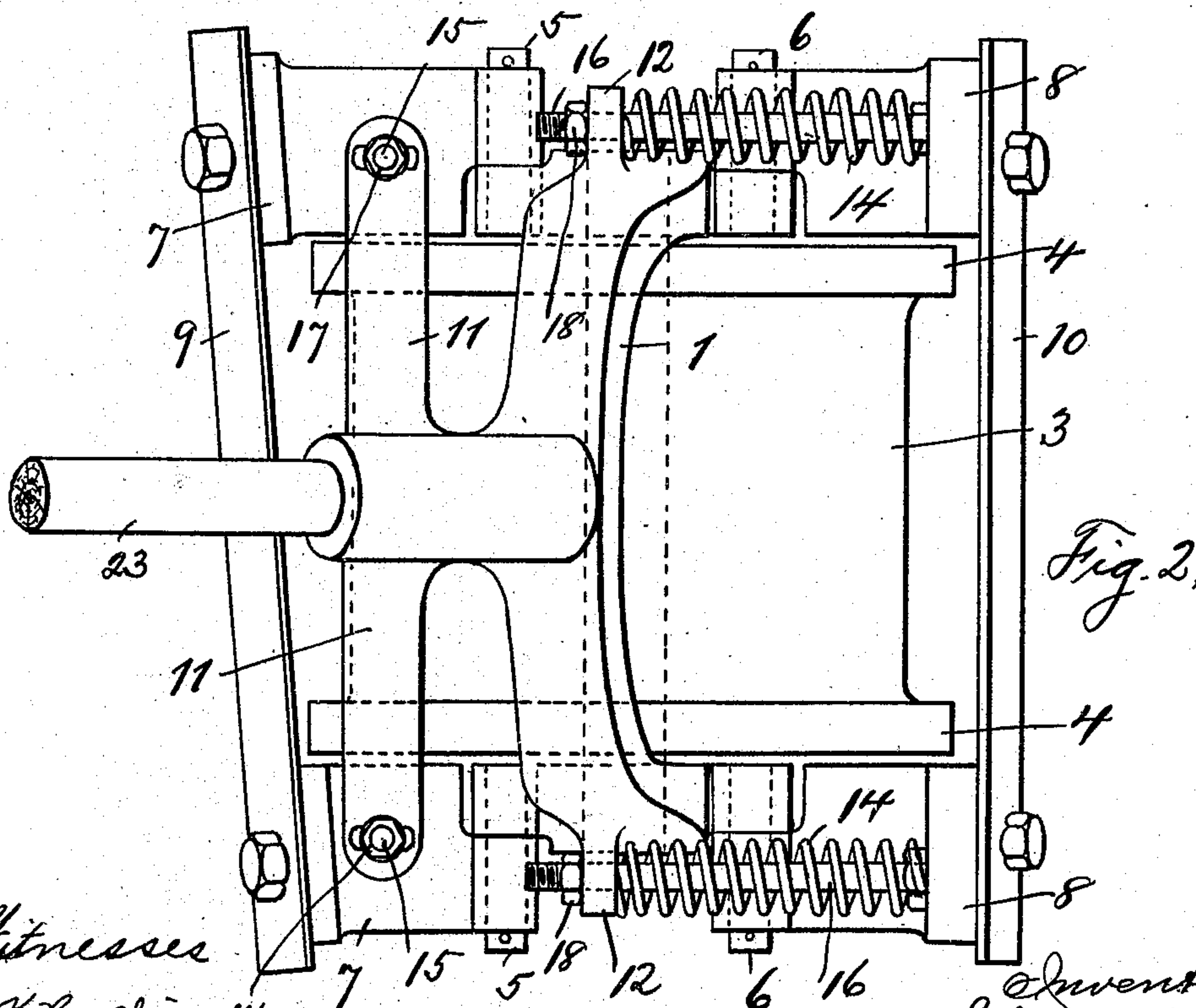
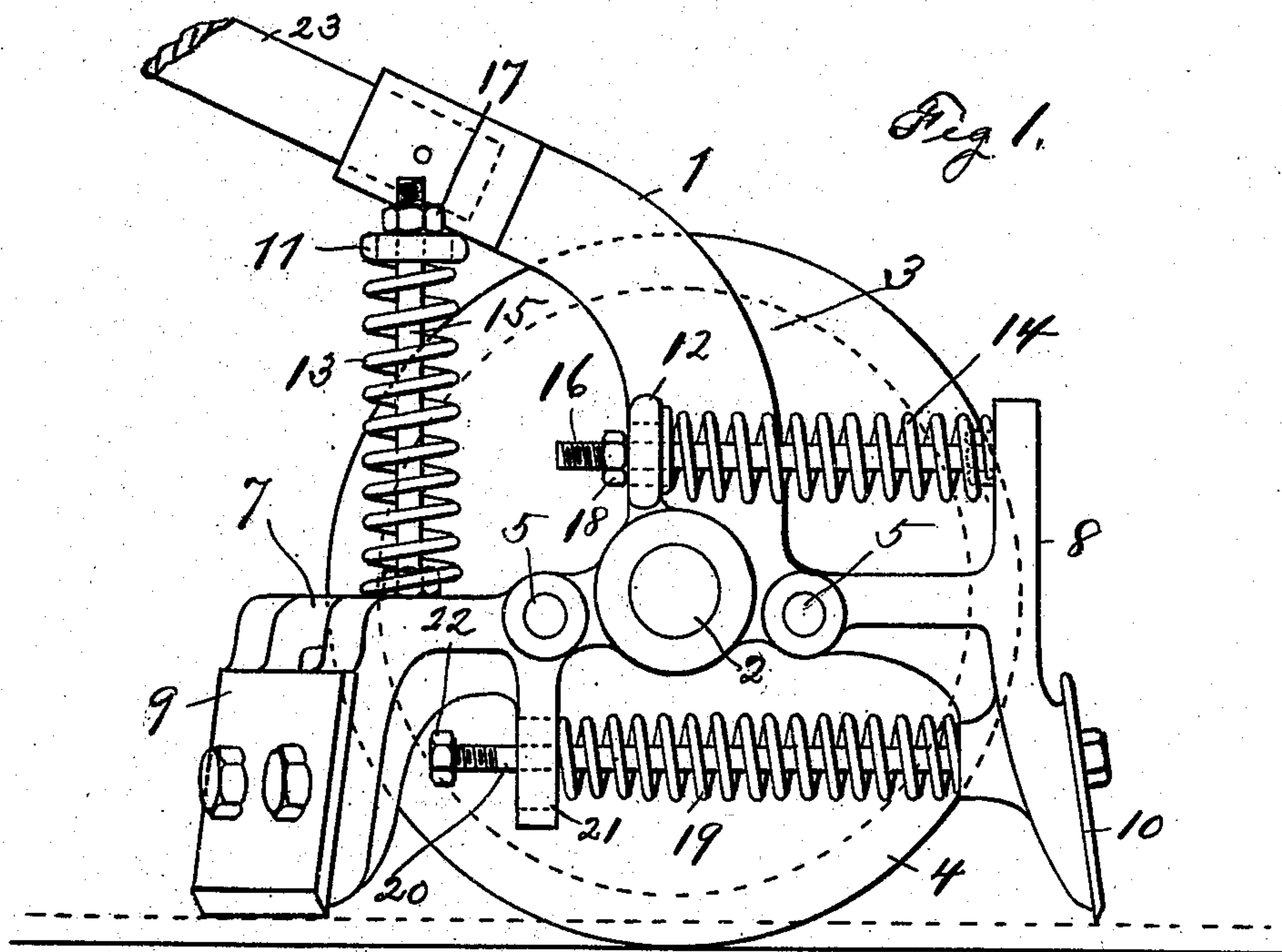


A. SCHWENKE.
FLOOR SCRAPING MACHINE.
APPLICATION FILED FEB. 24, 1908.

911,272.

Patented Feb. 2, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT SCHWENKE, OF KLEIN-WELSHEIM, NEAR SELIGENSTADT, GERMANY.

FLOOR-SCRAPING MACHINE.

No. 911,272.

Specification of Letters Patent.

Patented Feb. 2, 1909.

Application filed February 24, 1908. Serial No. 417,351.

To all whom it may concern:

Be it known that I, ALBERT SCHWENKE, a subject of the German Emperor, residing at Klein-Welsheim, near Seligenstadt, Hesse, in the Empire of Germany, manufacturer, have invented certain new and useful Improvements in Floor-Scraping Machines, of which the following is a full, clear, and exact description.

10 This invention has for its object an apparatus intended for scraping, by means of sharp steel blades, floors of any kind but especially parquetry floors. The apparatus hitherto employed for this purpose usually
15 consisted of a portable frame, on which the steel blade (the knife) was rigidly mounted. The result of this arrangement was that when the apparatus was pushed forward by the movement of the operator, an uneven
20 and very uncertain action of the knife took place. Attempts have also been made to arrange the knife blade so as to adjust itself, but all the arrangements hitherto provided for this purpose were such that the knife
25 blade was weighted unevenly by the springs, and therefore also the pressure of the spring increased with the pressure exerted by the hand of the operator. In all these arrangements in particular the blades were mounted
30 in rigid bearings, so that they could not sufficiently yield to varying requirements.

Now this invention has for its object a parquetry floor scraping machine which is characterized by its not only being double-
35 acting and thus acting in both directions of travel, with a separate knife for each, but also by its having a quite peculiar arrangement of springs by which the great advantage is attained that both knife blades
40 are held to a certain extent oscillatingly between each two springs, and in consequence of this bear on the floor with an approximately constant pressure and operate thereon uniformly.

45 The improved apparatus is shown in the accompanying drawings, in which:—

Figure 1 is a side view; and Fig. 2 a plan view.

As may be seen therefrom a broad roller
50 3, which is preferably provided with india-rubber treads 4, is made portable by means of a fork 1 and an axle 2. This roller also serves for loading the device and is therefore made of suitable weight. Instead of this
55 rigid system however two separate running wheels mounted on the ends of the axle 2

may also be provided, so that then the roller 3 only represents the loading weight. The fork 1 is also provided with pivots 5 and 6. Double elbow or T-shaped knife holders 7
60 and 8 are pivotally arranged in these pivots 5 and 6, in such a way that they may both move up and down independently of one another. The scraping knives 9 and 10 are mounted on the knife holders. Two pairs
65 of right arms or projections 11, 12, are also provided on the fork 1 against which arms, springs 13 and 14 bear. The other ends of the springs are placed on the knife holder 7 and spring pins 15 pass through the arms
70 11 but have a certain amount of free play in the holes of these arms, so that when the knife holder 7 turns in the pivot 5 they can move forwards and backwards correspondingly in the arms 11. Exactly the same ar-
75 rangement is adopted for the springs 14 which bear against the knife holder 8, the spring pins 18 of which have sufficient freedom of movement in the arms or projections 12. The springs 13 and 14 will now hold
80 the two knife blades 9 and 10 in a certain position which is adjusted by screw nuts 17 and 18. In this condition of affairs the springs would press the knives harder on the floor, the more obliquely the operator holds
85 the machine. This would render the action uneven and in order to prevent this a third system of springs 19 is provided. These springs are so arranged that they bear with
90 one end against the knife holder 7 and with the other against the knife holder 8. Their spring pins 20 are mounted firmly in the knife holder 8 and have a sufficient freedom of movement in the arms 21 which are
95 formed in one piece with the knife holder 7. Nuts 22 are placed so far on the ends of the pins 20 that the latter have sufficient freedom of movement longitudinally to both sides. The three pairs of springs 13, 14 and
100 19 are arranged in such a way that they all act against one another, and thus the two pairs of springs 13 and 14 counteract the pressure of the springs 19. By this means the result is obtained that when the machine is moved forward, the knife 9, and when
105 drawn backward, the knife 10 are always held suspended each balanced between two springs. A uniform and gentle action of the knives is thereby attained, so that even an unskilled operator can obtain excellent re-
110 sults with the improved machine.

The entire apparatus may be conveniently

moved to and fro by means of a handle or shaft 23 and in the forward movement be held down at the rear and in the backward movement at the front, so far that corresponding thereto one or other of the knives, which in the normal position stand a little away from the floor, each time are depressed, and come into action.

I declare that what I claim is:—

10 1. In a scraping machine for floors, a support frame, a plurality of scraping blades carried by said frame one in advance of the other and counterbalanced spring means for positioning said blades.

15 2. In a scraping machine for floors, a support frame, a plurality of scraping blades carried by said frame, one in advance of the other, a pair of spring devices acting upon each blade to position it, the two members

of each pair of spring devices being arranged to counterbalance each other. 20

3. In a scraping machine for floors, a support frame, two blade holders mounted upon said frame, scraping blades carried by said holders, one in advance of the other, counterbalanced spring means for positioning said blades, said means comprising a spring device arranged between each of said holders and said frame and a spring device arranged between the two holders. 25 30

In witness whereof, I have hereunto signed my name this 11th day of January 1908, in the presence of two subscribing witnesses.

ALBERT SCHWENKE.

Witnesses:

JEAN GRUND,
CARL GRUND.