A. S. EMERSON.

SQUILGEE.

APPLICATION FILED JAN. 10, 1908.

906,000. Patented Dec. 8, 1908.

Fig. 1.

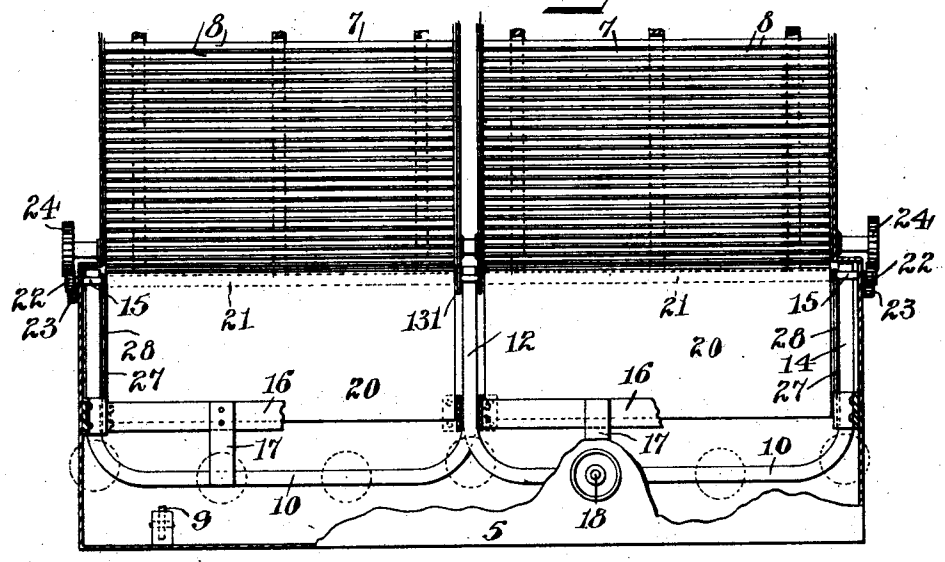


Fig. 2.

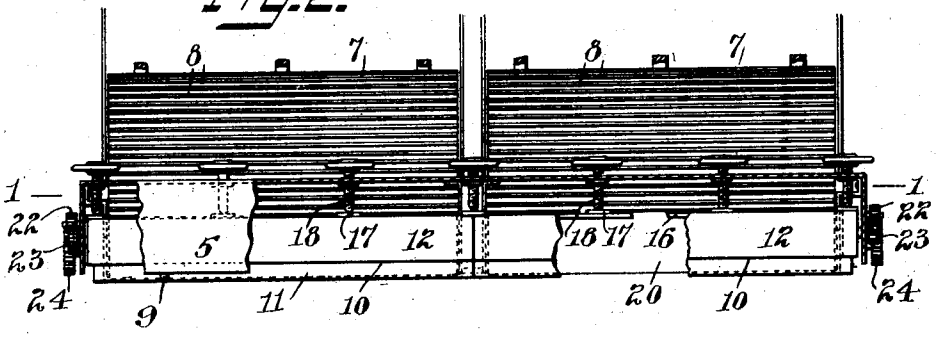
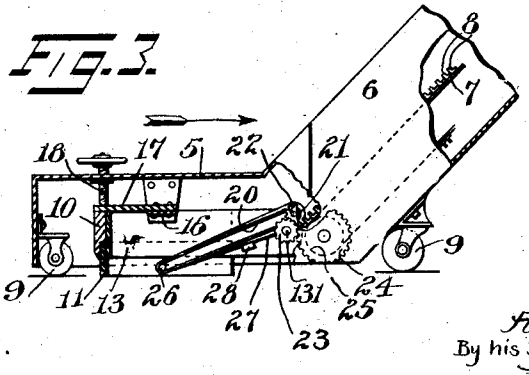


Fig. 3.



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SQUILGEE.

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To all whom it may concern:

Be it known that I, ALFRED S. EMERSON, a citizen of the United States, residing in London, England, have invented certain new and useful Improvements in Squilgees, of which the following is a specification.

This invention relates to cleaning devices, more particularly to street cleaning devices, and has for an object to provide an improved form of squilgee in connection with means for removing the material collected by the squilgee and conveying this to some position where it may be properly taken care of.

In the drawings accompanying and forming a part of this specification Figure 1 is partly a top plan view and partly a section, on the line 1—1 of Fig. 2, of a practicable embodiment of a form of my improvement. Fig. 2 is an end view of the device illustrated in Fig. 1, certain of the parts here are shown in vertical section; and Fig. 3 is a side view of the device illustrated in the other figures and is shown in part in central vertical section.

The form of my invention herein illustrated is intended for connection to a street sweeper for use when the streets are in such a condition that sweeping becomes an impracticable method of cleaning, when the street sweeping head will be removed and the squilgee head, herein illustrated, attached in its place. The casing 5 will cover certain parts and this casing will be continued in a hood 6 in which will be located a conveyer belt 7 which will be an endless belt and be provided with buckets 8. The casing is shown supported by casters 9.

In the present illustration there are shown a pair of squilgees 10—10, each of which is arched or bow shaped. The street engaging portion of the squilgee will preferably be made of rubber, a strip of rubber 11 in the present illustration which is fastened to the squilgee frame 12 being held between the frame 12 and a band 13. The inner portions of the two squilgees converge into one member 12 which is pivoted to the frame 5 at 131. The outer ends 14 of the frames are pivoted to the shaft 15. This permits a certain amount of upward and downward play of the street engaging portion.

To the casing 5 is fastened a bar 16 carrying spring arms 17, which arms will carry the squilgee and be engaged by set or adjusting screws 18 carried by the casing 5. By this means a proper amount of tension may be placed upon the squilgee; but this, of course, can yield to unevennesses which it encounters.

If the material on the street which it is desired to scrape up is pasty a different degree of adjustment will be required than when the material to be scraped is of a more liquid nature. The squilgee is stated to be arch shaped, that is it is provided with ends which project forwardly or in the direction of travel and a rear portion which is united to these ends, and as the squilgee, which I have termed "arch shaped" is thus dragged over the street surface the mud and water will be collected within this arch, and by the movement of the squilgee will be there held until it can be removed. The term "arch shaped" is merely relative and is used for convenience. An endless apron 20 of some suitable fabric will be employed for taking the material which has been scraped up by the squilgee and loading this upon the conveyer. The arrow shown in Fig. 3 indicates the direction of working movement of the squilgee. This apron is shown as mounted, at its end which projects toward the direction of motion of the squilgee when working, upon a roller 21 fast on the shaft 15, which shaft carries a pair of pinions 22 which mesh with idlers 23 in mesh with gear wheels 24 fast to the roll 25 which actuates the conveyer belt 7. The other end of the endless apron 20 is carried by a bar 26 supported by an arm 27 mounted upon the shaft 15. The arms 27 will engage supporting shoulders 28 so that the end of the belt supported by the bar 26 will be held away from engagement with the street surface which is being cleaned. The lower end of the endless belt 20 will be disposed within the arch of the U-shaped squilgee and will raise the material which has been scraped up and carry this forward and load it upon the conveyer belt which will carry the material away to some suitable position, as was before stated. The gearing for driving the endless apron 20 is such that the speed of the apron will be faster than the speed of the conveyer 7 and the edges of the conveyer buckets 8 are so positioned relative to the surface of the apron 20 that after the apron has thrown the bulk of the material carried thereby over

on to the conveyer belt these buckets will scrape the surface of the belt and thereby remove all the material from such surface.

Having described my invention I claim:

1. The combination with an arched squilgee, of a conveyer for conveying away material from said squilgee, and means located in the arch of said squilgee for loading said material on to said conveyer.

2. The combination with a squilgee, of an endless apron associated with the squilgee, a conveyer having buckets disposed for receiving the discharge from the apron and scraping the apron.

3. The combination with a casing, of rollers for supporting the casing, an arch shaped squilgee pivoted at its free ends to said casing, a bar across the casing, spring arms connecting the crown of the arch to said bar, means carried by the casing for bearing upon said arms for regulating the height of the squilgee, and means extending within the arch for conveying material away from the squilgee.

4. The combination with a squilgee, of an endless apron associated with the squilgee, a conveyer having buckets disposed for receiving the discharge from the apron and scraping the apron, and means for driving said apron and conveyer at different surface speeds.

5. The combination with a casing, of a squilgee mounted therein, a roller and means for rotating the same carried by the casing, supporting arms pivoted upon the axis of said roller and carrying a bar at their ends, an endless apron mounted upon said bar and roller and means for supporting said arms so that one end of said belt will be in position to receive the material scraped up by the squilgee.

6. The combination with an arched shaped squilgee, of means for holding this in engagement with the surface to be cleaned and for moving the same over the street with the crown of the arch directed away from the direction of movement, and means for conveying the material collected by the squilgee from within the arch.

Signed at Nos. 9–15 Murray street, New York, N. Y., this 13th day of December, 1907.

ALFRED S. EMERSON.

Witnesses:

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