

C. B. NESBITT.
DREDGER FOR PULVERULENT MATERIAL.
APPLICATION FILED MAY 20, 1908.

924,491.

Patented June 8, 1909.

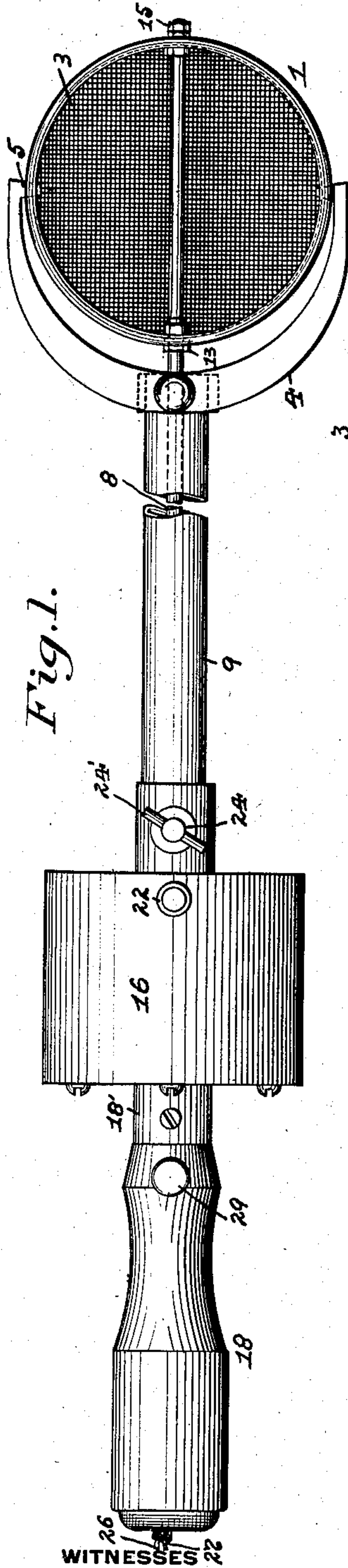


Fig. 1.

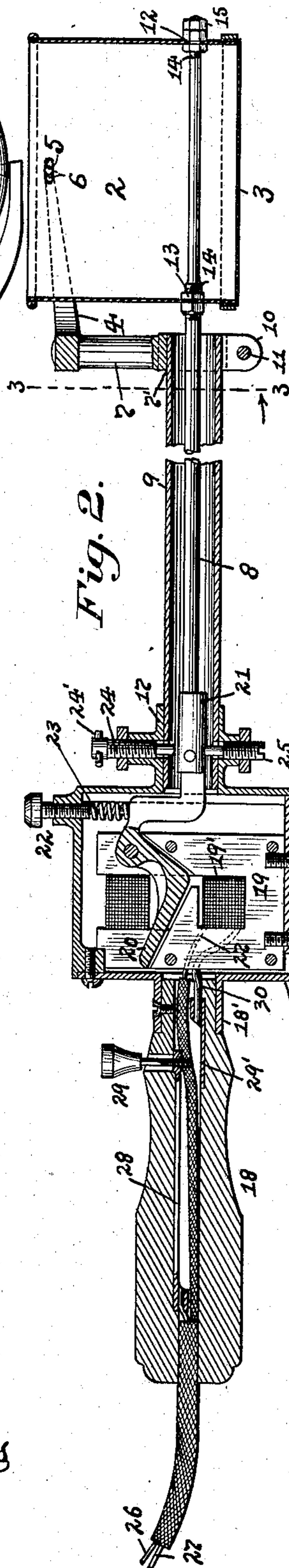


Fig. 2.

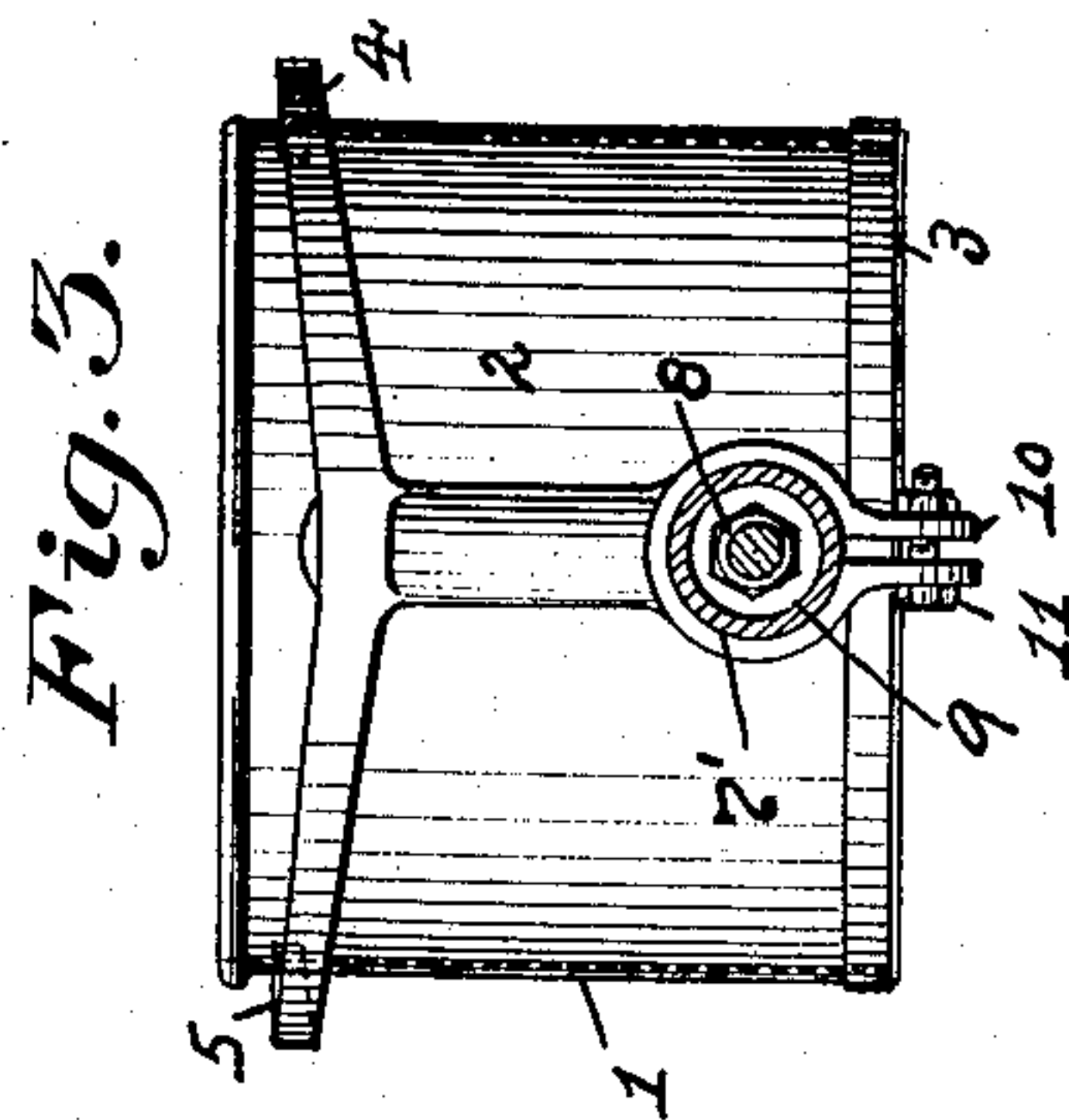


Fig. 3.

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UNITED STATES PATENT OFFICE.

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DREDGER FOR PULVERULENT MATERIAL.

No. 924,491.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed May 20, 1908. Serial No. 433,907.

To all whom it may concern:

Be it known that I, CHARLES B. NESBITT, a resident of Zelienville, in the county of Butler and State of Pennsylvania, have invented a new and useful Improvement in Dredgers for Pulverulent Material; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to dredgers for pulverulent material, and has special reference to such dredgers for use in sifting and distributing powdered enameling material on the surface of bath tubs and other vessels and articles.

The object of my invention is to provide a cheap, simple and efficient form of a dredger which will agitate or move the trough or receptacle carrying the pulverulent material or powder so that the same can be uniformly discharged from said receptacle and evenly distributed upon the article.

My invention consists, generally stated, in the novel arrangement, construction and combination of parts, as hereinbefore more specifically set forth and described and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use my improved dredger, I will describe the same more fully, referring to the accompanying drawing, in which:—

Figure 1 is a top view of a dredger embodying my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a vertical section on the line 3—3 Fig. 2 looking in the direction of the arrow.

Like symbols of reference herein indicate like parts in each of the figures of the drawing.

As illustrated in the drawing, 1 represents the sieve or sifter which consists of a trough or box-like receptacle 2, preferably formed of light sheet metal and having a wire cloth screen 3 at the bottom of the same through which the enameling material is shaken. The receptacle 2 is supported at its top portion within a forked or bifurcated arm 4 which extends around said portion and has pins 5 at its ends for fitting loosely within slotted holes 6 located centrally of said receptacle and on opposite sides of the same. This arm 4 has a vertical portion 7 which extends down from the same and has a tubular portion 7' at its lower end for supporting one end of the tubular handle portion 9 having

the rod 8 within the same. The arm 4 is split at its lower end to form the spring portions 10, which are adapted to be clamped around the handle portion 9 and support the same by means of a screw-bolt 11 passing through said portions 10. The rod 8 extends across the lower portion of the receptacle 2 below the supporting pins 5, and through holes 12 in the same and is secured in place by means of the nuts 13 engaging with the threaded portions 14 on said rod and fitting against the inner and outer sides of said receptacle, while a jam nut 15 engages with the other one of said threaded portions 14 and fits against the nut 13.

A casing 16 is connected to the opposite end of the handle portion 9 by means of a sleeve 17 extending out from one side of said casing and fitting over and around said end, and a handle 18 fits within and is connected to a like sleeve portion 18' extending out from the opposite side of said casing and forming part of the cover 16' therefor. Within the casing 16 is the alternating magnet 19 which has a pivoted armature 20 connected thereto and to a sleeve or coupling 21 connected to the end of the rod 8. A set-screw 22 extends through the casing 16 and between said screw and the armature 20 a spiral spring 23 is interposed for adjusting the movement of said armature through the tension in said spring. Set screws 24 and 25 extend through the sleeve 18 on the casing 16 and on opposite sides of said sleeve for engaging with the coupling sleeve 21 between the armature 20 and rod 8 to adjust the movement of said rod, the screw 25 being adapted to be set in the position desired, and the screw 24 being provided with a handle 24' for moving the same in its adjustment for said rod.

Extending through the handle 18 are the two wires 26 and 27 which lead from any suitable source of electrical supply by any suitable connection, the wire 27 being directly connected at its inner end to one of the coils 19' in the magnet 19 and the other wire 26 being connected to one end of a movable plate 28 in said handle. The opposite end of the plate 28 has a contact pin 29 extending through the same and through said handle for engaging with a contact plate 29' within said handle, and a wire 30 connects the plate 29 with the coil 19'.

When the dredger is connected up for use,

the current passes through the wires 26 and 27 and the operator in pressing down the contact pin will cause said pin to engage with the plate 29, thereby causing a circuit to be formed between said wires and the wire 30, which circuit and through the coils 19' in the magnet 19 will cause the armature 20 to vibrate. By reason of the rod 8 being connected to the armature 20 and to the receptacle 2, the said rod and receptacle will have a sliding or longitudinal movement imparted thereto through such receptacle being loosely mounted at its upper end by its holes 6 on the pins 5 of the arm 4, and cause the enameling material within the said receptacle to be shaken through the screen 3 onto the article to be enameled. By the arrangement of the rod 8 within and passing through the receptacle 2 it will cause an equal movement of said receptacle on the pins 5 and thereby distribute such movement throughout the same and for the material shaken through the screen 3.

It will thus be seen that my improved dredger for pulverulent material will enable the enamel to be deposited and distributed more evenly and quickly and will overcome the knocking devices or assistants usually employed in different apparatus of this character. The dredger can be easily and quickly connected up to any electric current for operating and will not require the employment or attachment of separate apparatus for working the same. It will also be evident that the dredger will be under perfect control of the operator at all times and the vibration of the same regulated at will, while the device will permit the use of both hands to carry and manipulate the same, and if desired it can be movably suspended from above and operated by one hand, thereby relieving the operator of a great deal of hard work and enabling him to turn out more work in a shorter space of time than is possible in the use of ordinary dredgers.

The electrical device employed and forming part of the dredger is of the ordinary and approved form of construction, but any form of such device suitable for the purpose may be employed, while various other devices may be applied for moving the receptacle.

The operation of the dredger will not be affected by the expansion and contraction of the parts of the same from the heat of the article being enameled, it can be used for other purposes, and various changes in the design and construction of the various parts of the

same may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

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

1. A dredger comprising a handle, a sieve or screen connected to said handle and loosely supported centrally thereon, a rod passing through and directly connected to said sieve at right angles to its said supports and below the same, and means connected to said rod for moving the same and sieve.

2. A dredger comprising a handle having a forked arm thereon, a sieve or screen connected to said arm and loosely supported centrally thereon, a rod passing through and directly connected to said sieve at right angles to its said supports and below the same, and means connected to said rod for moving the same and sieve.

3. A dredger comprising a handle, a forked arm on said handle having pins thereon, a sieve or screen connected to said pins through holes in said screen and adapted to be loosely supported centrally thereby, a rod passing through and directly connected to said sieve at right angles to its said supports and below the same, and means connected to said rod for moving the same and sieve.

4. A dredger comprising a handle, a forked arm on said handle having a vertical portion for being connected to said handle, pins on the forks of said arm, a sieve or screen connected to said pins through holes in said screen and adapted to be loosely supported centrally thereby, a rod passing through and directly connected to said sieve at right angles to its said supports and below the same, and means connected to said rod for moving the same and sieve.

5. A dredger comprising a handle, a forked arm on said handle having a split vertical portion thereon for being clamped around said handle, pins on the forks of said arm, a sieve or screen connected to said pins through holes in said screen and adapted to be loosely supported centrally thereby, a rod passing through and directly connected to said sieve at right angles to its said supports and below the same, and means connected to said rod for moving the same and sieve.

In testimony whereof, I, the said CHARLES B. NESBITT, have hereunto set my hand.

CHARLES B. NESBITT.

Witnesses:

WILLIAM F. FOGEL,
ROBERT GARIS.