C. H. GREEN.

PORTABLE SAND SIFTING MACHINE.

APPLICATION FILED APR. 12, 1915.

1,230,477. **Patented June 19, 1917.**

Fig. 1.

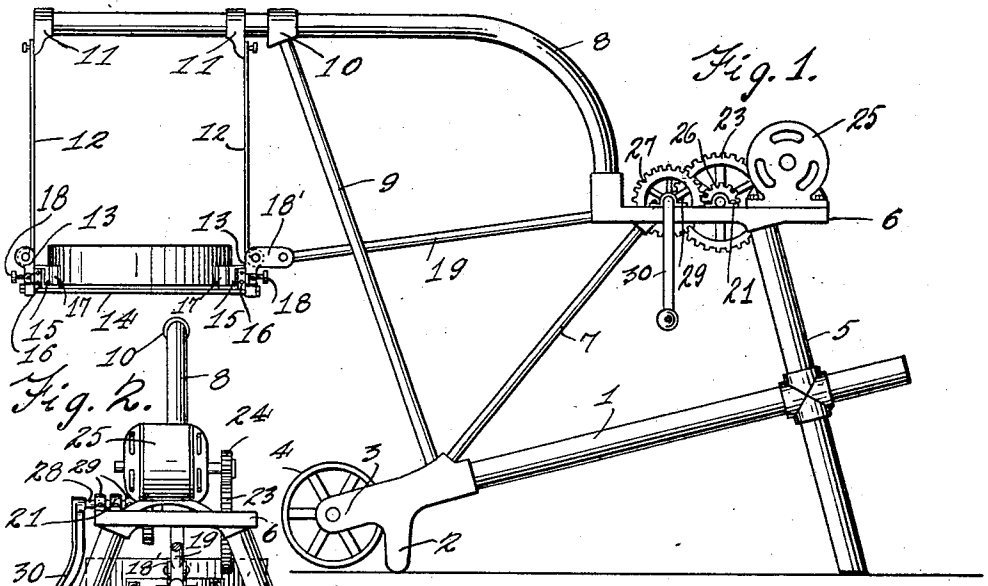


Fig. 2.

Fig. 4.

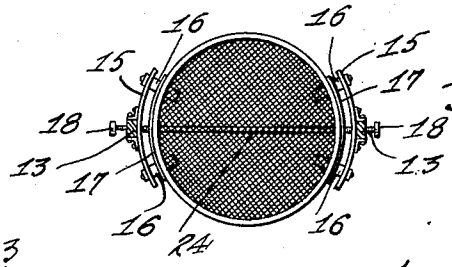
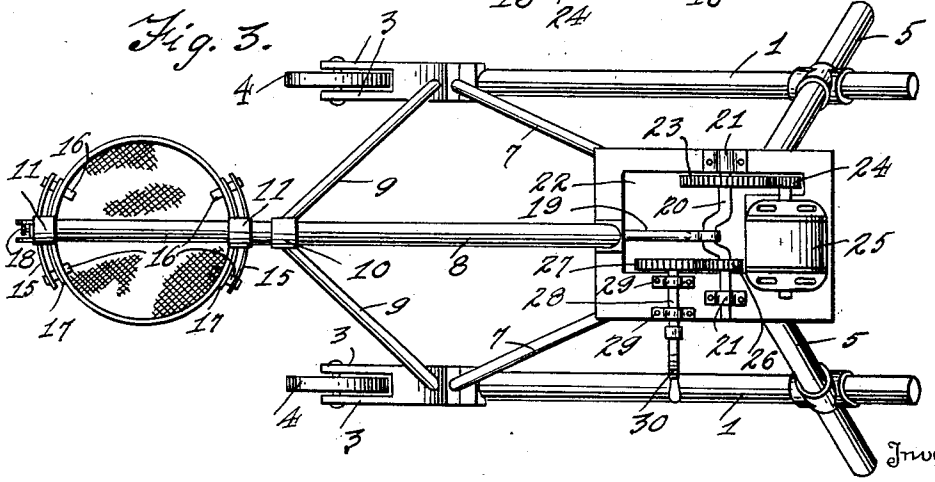


Fig. 3.



Witnesses

G. H. Hawkes.

D. H. Morris.

Inventor

C. H. Green.

By Reginald S. Brandon

Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES H. GREEN, OF CHICAGO, ILLINOIS, ASSIGNOR TO E. J. WOODISON COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

PORTABLE SAND-SIFTING MACHINE.

1,230,477. Specification of Letters Patent. Patented June 19, 1917.

Application filed April 12, 1915. Serial No. 20,821.

To all whom it may concern:

Be it known that I, CHARLES H. GREEN, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Portable Sand-Sifting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a portable sand sifting machine.

An object of the invention resides in the construction of a machine which may be readily transported, by means of which sand may be sifted.

A further object of the invention resides in so constructing the machine that during the sifting of the sand there will be practically no vibration of the body of the machine.

A still further object of the invention resides in the provision of means for holding the sieves, which means is adjustable to accommodate sieves of different sizes.

With these and other objects in view, such as will appear as the description progresses, my invention comprises the combination and arrangement of parts as set forth in and falling within the scope of the appended claim.

Referring to the drawing:

Figure 1 is a side elevation of a machine constructed in accordance with my invention.

Fig. 2 is a fragmental rear elevation.

Fig. 3 is a plan view.

Fig. 4 is a fragmental detail of the sieve supporting means.

Referring to the drawing wherein like parts are indicated by like characters throughout the several views:

In the embodiment of my invention shown in the drawings I have provided a pair of base bars 1, each of which has a casting secured to one end thereof. This casting includes a downwardly extending projection 2 which forms a leg and a pair of outwardly extending spaced arms 3 between which a wheel 4 is mounted. Secured to the said base bars 1, adjacent the rear ends thereof, are standards 5, portions of which extend upwardly and downwardly from the said base bars, the said downwardly extending portions being used as the rear legs of the device and the upwardly extending portions having a platform 6 mounted thereon, which platform is also supported by brace bars 7 which are mounted on the castings on the forward ends of the base bars 1. Secured to the platform 6 and extending upwardly therefrom is a supporting beam 8. This beam is braced between its ends by bars 9 which are secured to a collar 10 on the beam and extend downwardly and are secured to the castings on the base bars 1.

Mounted on this beam 8 in spaced relation are a pair of collars 11 to which are secured downwardly extending spring arms 12 having castings 13 secured to the lower ends thereof. These castings 13 are joined together by a rod 14.

In order that the sieve may be supported upon these castings 13, I have formed arcuate members 15 thereon which are provided with horizontally extending fingers 16. These fingers 16 extend toward each other and are of such length that sieves of various diameters may be supported thereby.

In order that the sieve may be clamped in place upon these fingers 16, I have provided, adjacent each of the castings 13, an arcuate clamping member 17 which is operable by means of a hand screw 18 which passes through and is in threaded engagement with the adjacent casting 13. Thus when a sieve is placed upon and supported by the fingers 16 the hand screws 18 may be operated to move the clamping members 17 into engagement with the side of the sieve and secure it in place.

In order that this sieve may be oscillated, I have provided one of the castings 13 with an outwardly extending arm 18′ to which is pivotally connected a link 19, which link extends toward the platform 6 and is connected to the crank portion of a crank shaft 20. This shaft 20 is mounted in suitable bearings 21 on the platform 6, the crank portion being located in a cut-out portion 22 of the platform 6.

In order that the shaft 20 may be rotated, automatically, I have secured a gear 23 to the same, which meshes with a relatively smaller gear 24 on the armature shaft of a motor 25, which motor is mounted upon the platform. Thus when the motor is energized the gear 24, will, through, the gear

23, cause the rotation of the shaft 20 and the reciprocation of the link 19, and thus will oscillate the sieve. The motor is materially assisted by the action of the spring arms 12.

In order that the shaft 20 may be manually rotated, I have secured a small gear 26 to the end opposite to that on which the gear 23 is secured. Meshing with this gear 26 is a relatively larger gear 27 secured to a shaft 28 which is mounted in suitable bearings 29 on the platform 6. On the end of this shaft 28 is a crank handle 30, thus when this handle is turned rotative movement will be imparted to the shaft 20 and the sieve manually oscillated.

When the device is in use it will be supported by the legs and the wheels 4 will be raised from the ground and thus the frame will be held stationary so as to give full effect to the vibrations to the sieve, but when it is desired to transport the device from place to place it is only necessary to grasp the rear ends of the base bars 1 which are used as handles and lift the same until the device is supported by the wheels 4 at which time it may be readily pushed about.

From the foregoing description it will be seen that I have provided a portable sand sifting machine which includes a sieve supporting frame and means for oscillating said frame to cause the sand to be sifted through the sieve.

I have so constructed the device that the oscillations may be imparted to the sieve manually or by power means. Furthermore I have mounted the sieve supporting means upon resilient arms.

While I have illustrated and described a particular embodiment of my invention, I have merely done so for the sake of convenience and I do not wish to be limited to that particular embodiment as it is obvious that numerous changes may be made within the details of construction thereof without in any way departing from the spirit of the invention or exceeding the scope of the appended claim.

What I claim is:—

In a portable sand sifting machine, the combination of a beam, downwardly extending resilient arms connected to said beam, castings mounted in the lower ends of said arms, a rod extending between and secured to said castings, arcuate members carried by said castings and having fingers extending therefrom in converging relation, a sieve supported on said fingers, other arcuate members engaging said sieve to clamp the same into position, and means carried by the first named arcuate members for adjusting the second named arcuate members into clamping position.

In testimony whereof, I affix my signature, in the presence of two witnesses.

CHARLES H. GREEN.

Witnesses:
JAMES E. EVANS,
GEORGE L. LYON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."