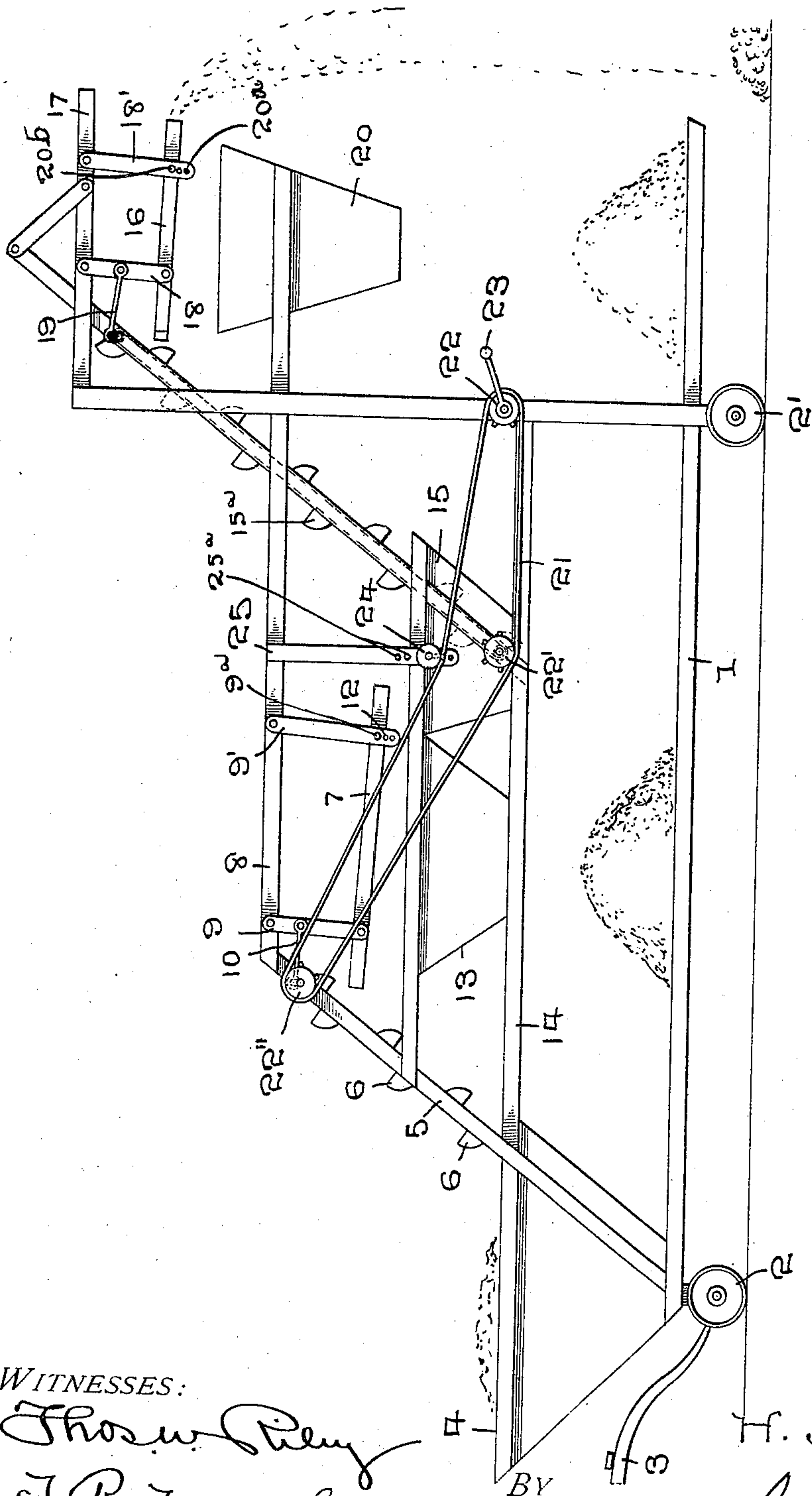


H. ARPS.
SAND CLEANING MACHINE.
APPLICATION FILED SEPT. 7, 1909.

966,294.

Patented Aug. 2, 1910.



WITNESSES:

Thos. W. Riley
J. R. French.

INVENTOR.

H. Arps

BY

W. J. FitzGerald & Co.
Attorneys

UNITED STATES PATENT OFFICE.

HENRY ARPS, OF ROGERS, NEBRASKA.

SAND-CLEANING MACHINE.

966,294.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed September 7, 1909. Serial No. 516,480.

To all whom it may concern:

Be it known that I, HENRY ARPS, a citizen of the United States, residing at Rogers, in the county of Colfax and State of Nebraska, have invented certain new and useful Improvements in Sand-Cleaning Machines, and 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.

My invention relates to new and useful improvements in sand machines, and especially to the class which has for an object to grade the sand into coarse, medium and fine.

A further object is to provide a machine which may be readily moved from place to place, and also one which may be easily operated by manual labor if desired.

Referring to the drawing which forms a part of the accompanying specification, the figure is a side elevation of my device.

In carrying out my device I use a platform, or base 1 mounted upon suitable trucks or wheels 2—2', and a tongue extension 3 attached to the forward truck is adapted to be utilized in moving the sand machine from place to place. Located over the forward truck is a hopper 4, in which is placed the sand before it starts through the grading process. A frame 5, the base of which is secured to the platform 1, carries a belt and a plurality of elevator buckets 6 which move around a suitable pulley secured in said frame 5, and the buckets in their continuous movement are adapted to carry sand from the hopper 4 and so dump it in order to fall upon a sieve 7, said sieve being suspended from a cross standard 8 and carried by the upright bars 9 and 9'. The first mentioned bar 9 has secured thereon a rocker arm 10, which in turn works upon an eccentric 11 whose shaft is supported from the member 8 in order that the sieve 7 may receive sufficient movement to cause the sand to pass through the openings. The second mentioned bar 9' has a means for regulating the slant of the sieve the same being apertures 9^a, as seen at 12, receiving lateral studs projecting from the sieve 7. The first step of grading the sand is completed after the sand has passed through the sieve 7 down into a funnel-like member 13, which is supported by the cross-beam 14. The sand after passing through the funnel-like member 13 is deposited upon the platform 1. The grains of

sand which are too large to pass through the sieve 7 are thrown into a second hopper 15, supported by the cross-beam 14. A plurality of elevator buckets 15^a, similar to those described at 6, are adapted to carry the contents of the hopper 15 and deposit the same upon a second named sieve 16, which is supported from a horizontal standard 17 by the vertically extending bars 18 and 18'. The first named bar 18 has a rocker arm 19 which works upon an eccentric, in order to vibrate the sieve that the sand may be caused to pass downwardly into a funnel-member 20, and from there on to the platform 1. The vertically extending bar 18' has adjusting openings 20^a therein receiving lateral studs 20^b projecting from the sieve 16 for increasing or decreasing the angle of the sieve so as to throw out the remaining particles of sand which did not pass through the openings in the sieve.

In order to furnish power for the elevator buckets I employ a link-belt 21 which passes around geared wheels 22, 22' and 22''. The geared wheel 22 has coöperating therewith a handle 23, by which it is possible to furnish power, thereby causing the link-belt 21 to pass around the geared wheels 22, which in turn cause the elevator buckets to move along their paths.

A belt tightener 24 is carried by a bar 25, which in turn is suspended from the standard 8. This belt tightener is adapted to be raised or lowered as it may be desired to tighten or loosen the belt, it being provided with adjusting openings 25^a receiving the shaft of said belt tightener.

What I claim is:

1. A device of the character described comprising a platform, a frame carrying said platform, a hopper arranged upon one end of said platform, elevator buckets arranged in the forward end of said frame for receiving the contents of said hopper, a sieve suspended from upper bars of said frame, hangers for effecting such suspension of said sieve, means for vibrating said sieve, a second hopper arranged to receive the material passing through said sieve, a third hopper receiving the material passing from the delivery end of said sieve, additional elevator buckets taking the contents of the last referred to hopper and elevating the same, a second sieve receiving the material elevated by the last referred to elevator buckets, means for suspending the last referred to

sieve from said frame, means for vibrating said sieve, a fourth hopper arranged below the last referred to sieve.

2. A device of the character described,
5 comprising a platform, a frame supporting said platform, a hopper arranged at one end of said platform, elevator buckets for elevating the contents of said hopper, a sieve, means for suspending said sieve from
10 upper bars of said frame, means for actuating said sieve, including a link and an eccentric, said link being connected to the suspending means for said sieve, a hopper arranged below said sieve, an additional hopper
15 adapted to receive the material from said sieve, additional elevator buckets adapted to lift material from the last referred to hopper, a second sieve adapted to receive

the material from said elevator buckets, means for suspending such sieve from said 20 frame, an actuating shaft, link and eccentric connection between the suspending means of the last referred to sieve and said actuating shaft, gear wheels arranged in connection with said elevator buckets, an additional 25 gear wheel arranged upon said frame, and a link belt engaging said gear wheels and means for actuating said belt from said additional gear wheel.

In testimony whereof I have signed my 30 name to this specification in the presence of two subscribing witnesses.

HENRY ARPS.

Witnesses:

R. JACOBSEN,
PETER VELLER.