

No. 723,187.

PATENTED MAR. 17, 1903.

J. W. SAPPINGTON, T. A. KENDRICK & C. WRIGHT, JR.

SAND SIFTING MACHINE.

APPLICATION FILED FEB. 13, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

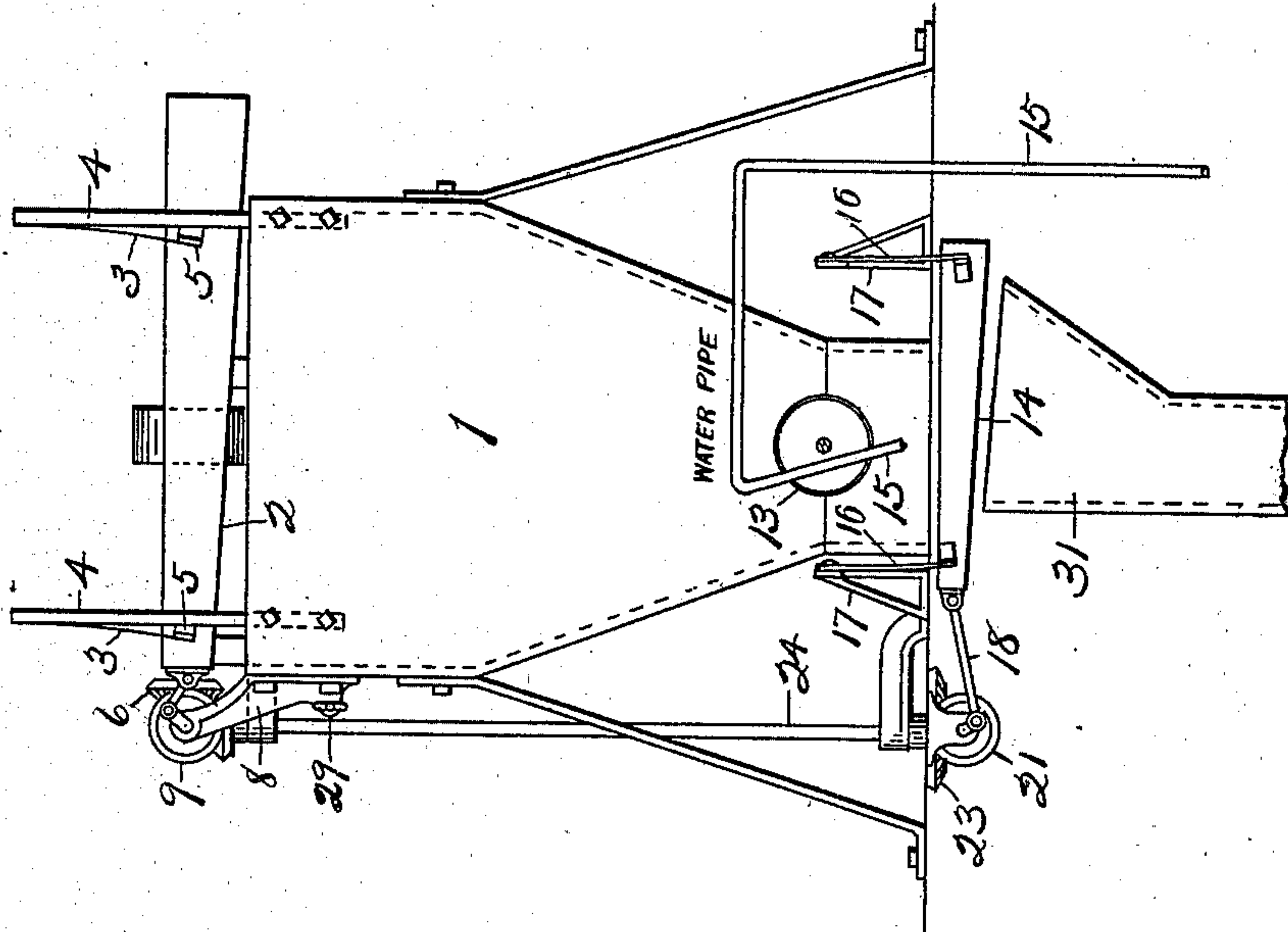
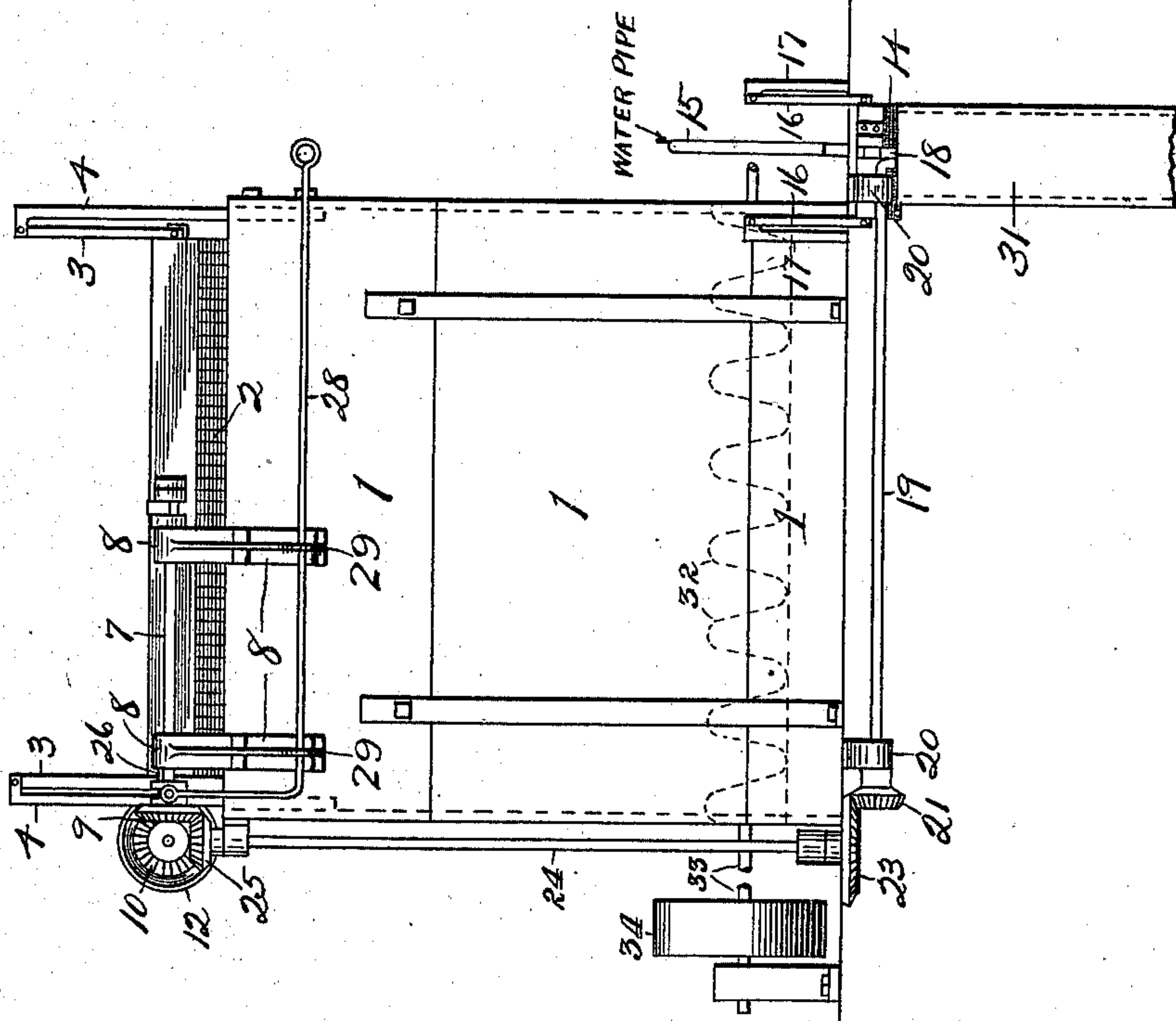


Fig. 2.



Witnesses,

K. M. Imboden,
M. L. Lange

Inventors,

J. W. Sappington,
T. A. Kendrick,
C. Wright, Jr.

By Higdon & Higdon, Attys.

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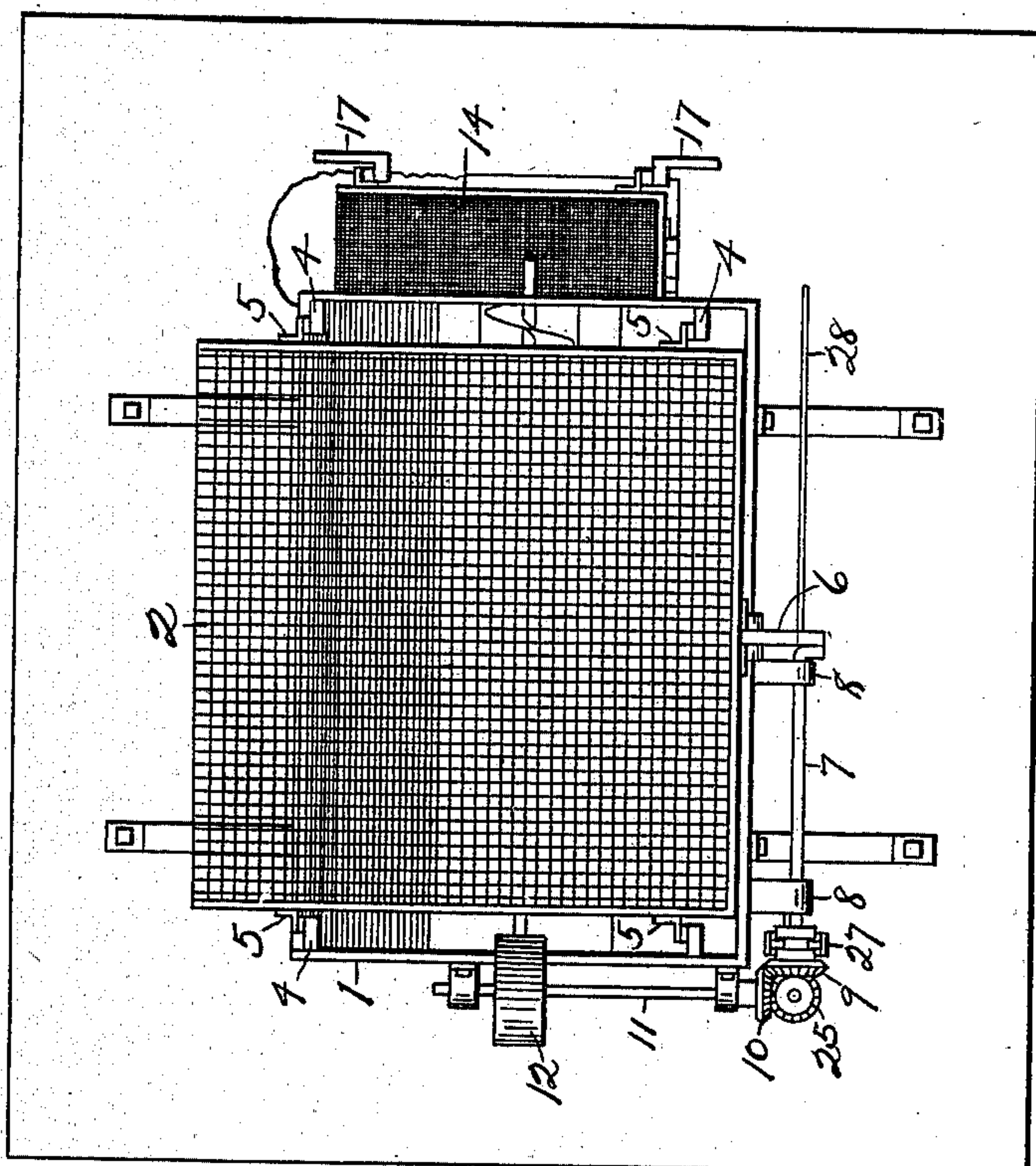
SAND SIFTING MACHINE.

APPLICATION FILED FEB. 13, 1902.

NO MODEL.

2 SHEETS—SHEET 2.

Fig. 3.



Witnesses:

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By Higdon & Higdon, Attys

UNITED STATES PATENT OFFICE.

JOSEPH W. SAPPINGTON, THOMAS A. KENDRICK, AND CURTIS WRIGHT, JR.,
OF CARTHAGE, MISSOURI, ASSIGNORS, BY DIRECT AND MESNE ASSIGN-
MENTS, TO CARTHAGE SAND MACHINE COMPANY, A CORPORATION OF
MISSOURI.

SAND-SIFTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 723,187, dated March 17, 1903.

Application filed February 13, 1902. Serial No. 93,876. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH W. SAPPINGTON, THOMAS A. KENDRICK, and CURTIS WRIGHT, Jr., citizens of the United States,
5 residing at Carthage, in the county of Jasper and State of Missouri, have invented new and useful Improvements in Sand-Sifting Machines, of which the following is a specification.

10 Our invention relates to vibrating screens for sifting sand or separating sand from gravel; and our invention is designed to be employed in connection with a certain machine for feeding sand to stone-saws, polish-
15 ing-beds, &c., on which machine Letters Patent were applied for March 22, 1901, Serial No. 52,350, by Thomas A. Kendrick, Joseph W. Sappington, and William N. Phillips, of Carthage, Missouri.

20 The object of our invention is to prevent pebbles and dirt from access to the stone-saws or polishing-beds by screening or sifting the sand before it is delivered thereto.

In the accompanying drawings, in which
25 corresponding numerals refer to corresponding parts, Figure 1 is an end elevation of our invention. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view of the same, omitting the water-pipe.

30 In Figs. 1 and 2 the floor is represented by a line for clearness.

1 is a hopper-shaped receptacle forming the frame on which the coarse screen 2 and the gearing described hereinafter are mounted.

35 The screen 2 is inclined, as shown in Fig. 1, its lower side projecting past the side of the hopper 1. The frame of the screen 2 is hung by flat steel springs 3 from iron standards 4, rigidly secured to the hopper 1, either inside
40 or outside. The lower ends of the spring-hangers 3 are riveted or bolted to lugs 5, which are secured to the screen-frame. The screen 2 is vibrated by a pitman 6, connected to a cranked shaft 7, mounted in bearings 8 8 and
45 having a bevel gear-wheel 9 mounted thereon, driven by a bevel gear-wheel 10 on a shaft 11, on which is a belt-pulley 12. The sand that falls through screen 2 to the bottom of the hopper 1 is pushed out through an

opening 13, Fig. 1, by rotation of a screw 50
conveyer 32, mounted on a shaft 33, on which is a pulley 34, which may be driven by a belt or by any other means desired. The sand falls on a screen 14, made of wire-cloth of fine mesh. A water-pipe 15 is provided for dis- 55
charging water upon the sand upon the screen 14 to facilitate the sifting operation. A spraying-nozzle may be attached to the pipe 15, if desired. The water-pipe 15 is preferably con- 60
nected to a waterworks-pipe, which will supply it with water under pressure; but pipe 15 may be connected to an elevated water-tank if no better supply is available.

The screen 14 is hung by spring-hangers 16 from standards 17, secured to the floor, and 65
is vibrated by a pitman 18, connected to a cranked shaft 19 in bearings 20 20, having a bevel gear-wheel 21 thereon, engaged by a bevel gear-wheel 23 on vertical shaft 24, on the upper end of which is a bevel gear-wheel 70
25, driven by the aforesaid gear-wheel 10 on shaft 11. Gear-wheel 9 is splined on its shaft with a feather 26, and its hub is grooved, as shown in Fig. 3, to receive the studs of a shipper 27 of the ordinary type. 75

Rigidly secured to the shipper 27 is a rod 28, which extends downwardly and then horizontally, its horizontal portion being mounted slidably in lugs 29 on bearing-brackets 8 8. By pushing or pulling on rod 28 the splined 80
gear-wheel 9 may be thrown into or out of gear with gear-wheel 10. The pulley-shaft 11 may be driven continuously; but the screen 2 need be used only when the hopper 1 is being replenished with sand. When the sand 85
is all sifted, the motion of screen 2 is stopped by throwing gear-wheel 9 away from gear-wheel 10 by rod 28, as aforesaid.

When the sand reaches the fine screen 14, the sifting is aided by the water discharged 90
from pipe 15. The sifted sand falls into a spout 31, from which it is conducted to the point where it is to be used.

Having now fully described our invention, what we claim as new, and desire to secure by 95
Letters Patent of the United States, is—

The combination, with a hopper having an outlet-opening therein, of a vibratory screen

thereabove, a horizontal shaft, means for vibrating said screen by rotation of said shaft, a gear-wheel splined on said shaft, a horizontal drive-shaft, a gear-wheel 10 thereon, engaging said splined gear-wheel, a vibratory screen 14 below said outlet-opening, a horizontal shaft 19, means for vibrating said screen 14 by rotation of shaft 19, a gear-wheel 21 on shaft 19, a gear-wheel on said vertical shaft, engaging gear-wheel 21, and an upper gear-wheel on said vertical shaft, engaged by gear-wheel 10, whereby said screens may be actuated simultaneously, and means for mov-

ing said splined gear into and out of mesh with gear-wheel 10, whereby said screen 14 may be actuated alone; substantially as described.

In testimony whereof we affix our signatures in the presence of two witnesses.

JOSEPH W. SAPPINGTON.
THOMAS A. KENDRICK.
CURTIS WRIGHT, JR.

Witnesses:

J. P. NEWELL,
J. F. PETEL.