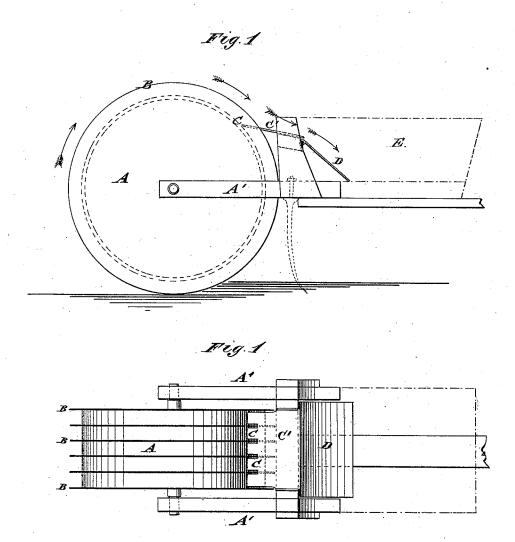
R. C. GARCIA.
SAND-CONVEYER.

No. 193,155.

Patented July 17, 1877.



WITNESSES: A.W. Almgvish J. J. Carbovaughi INVENTOR:

N. b. Garcia

BY

MININEYS.

## UNITED STATES PATENT OFFICE.

RUFINO C. GARCIA, OF SAN ANTONIO, TEXAS, ASSIGNOR TO HIMSELF AND AUG. ROBIN, OF SAME PLACE.

## IMPROVEMENT IN SAND-CONVEYERS.

Specification forming part of Letters Patent No. 193,155, dated July 17, 1877; application filed June 11, 1877.

To all whom it may concern:

Be it known that I, RUFINO CARRADA GAR-CIA, of San Antonio, in the county of Bexar and State of Texas, have invented a new and Improved Sand-Conveyer, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a side elevation of my improved machine for conveying sand, and Fig. 2 a top view of the same.

Similar letters of reference indicate corresponding parts.

The invention relates to a machine, constructed as hereinafter described, for taking up and conveying sand into a suitable recep-

tacle.

In the drawing, A represents a large drum or cylinder, whose shaft revolves in bearings of a side frame, A', that is connected at the

front part by a cross-piece, to which the tongue is attached.

The machine may be pulled, by hand or horse-power, over the sandy ground, the same being first loosened, if too firmly packed together, by a series of detachable teeth, secured to the cross-piece, but which in soft and

moist sand are not required.

The drum A is provided with a number of circumferential cutting knives, B, and constructed of sufficient weight to sink them into the sand, and pack the same tightly in the spaces or sections between the knives. These sections are continually filled with sand by the forward motion of the drum, the sand being cleared from the sections by scrapers or fingers C, that extend from an inclined plate,

C', at the upper front part of the drum, into the sections between the knives.

The sand is retained in the sections and carried up between the knives to the scrapers, passing then over the inclined plate C', that is secured rigidly on side supports of the tongue-frame A', and over a hinged apron, D, to a suitable receiving box, E. The lower end of the inclined apron D rests on the bottom of the receiving box E, which box is supported on side chains, or in other detachable manner, on the tongue of the machine, to be readily dumped or removed when filled with sand.

In this manner sand for various purposes is readily taken up and collected in cheap and effective manner, requiring only one attendant, either for driving the horse or pulling

and discharging the machine.

I do not claim a drum or wheel having circular and projecting peripheral knives or cutters arranged parallel for cutting the soil into slices, for the purpose of cultivation or forming a ditch; but,

ing a ditch; but,
Having thus described my invention, I claim as new and desire to secure by Letters

Patent-

The machine for conveying sand, consisting of the receptacle E, the inclined conducting-apron D, fingers C, inclined plate C', and the drum or wheel provided with circular cutters, all combined and arranged as shown and described.

RUFINO CARRADA GARCIA.

Witnesses:

GEO. W. CALDWELL, E. GRIFF. JONES.