

(No Model.)

DE WITT C. FURMAN.
SAND REEL.

No. 455,530.

Patented July 7, 1891.

Fig. 1.

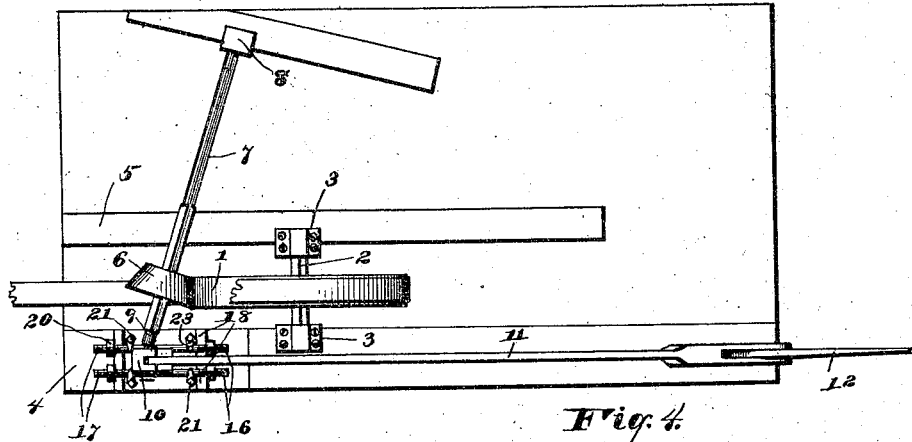


Fig. 2.

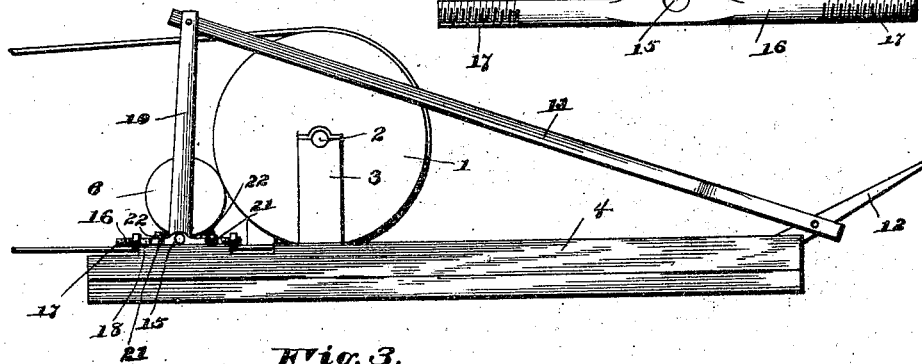


Fig. 3.

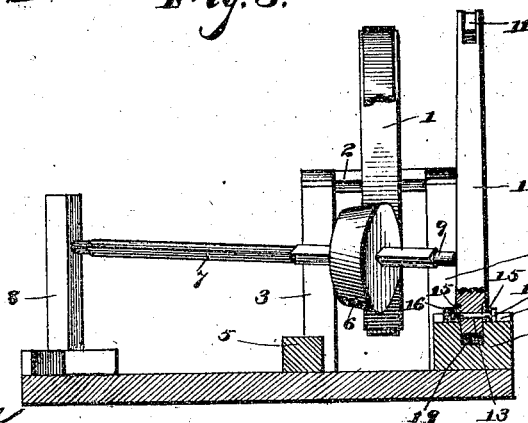
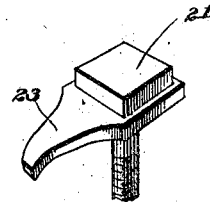


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

DE WITT C. FURMAN, OF WASHINGTON, PENNSYLVANIA.

SAND-REEL.

SPECIFICATION forming part of Letters Patent No. 455,530, dated July 7, 1891.

Application filed September 27, 1890. Serial No. 366,345. (No model.)

To all whom it may concern:

Be it known that I, DE WITT C. FURMAN, a citizen of the United States, residing at Washington, in the county of Washington and State of Pennsylvania, have invented a new and useful Sand-Reel, of which the following is a specification.

The invention relates to improvements in sand-reels.

Heretofore great difficulty has been experienced in preserving the proper adjustment and contact between the large pulley receiving motion from an engine, and the small pulley which is mounted on the windlass carrying the rope for raising the rock, sediment, or grindings cut by drilling wells. These pulleys are constructed of wood and form frictional gear, and great pressure is required to cause the pulleys to gear properly, and the wood of the pulleys becomes rapidly worn and their point of contact varies.

The object of the present invention is to provide means whereby the pulleys may be readily adjusted and maintained at their proper point of contact.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a plan view showing the pulleys of a sand-reel adjusted in accordance with this invention. Fig. 2 is a side elevation of the same. Fig. 3 is a transverse sectional view. Figs. 4 and 5 are detail views.

Referring to the accompanying drawings, 1 designates a large pulley constructed of wood and mounted upon a shaft 2, having its ends journaled in uprights 3, rising from sills 4 and 5. The pulley 1 is designed to receive motion by a belt from an engine or other suitable motive power and transmits such motion by frictional contact to a small pulley 6, mounted upon a windlass-shaft 7, which is designed to carry the rope or cable for raising the ground stone from wells being drilled. One end of the windlass is journaled in a standard 8, and the pulley 6 is mounted upon the shaft or windlass near its opposite end 9, which is journaled in a swinging lever 10, and the said windlass or shaft is arranged at an

angle to the shaft 2 of the pulley 1, and is adapted to be carried by means of the lever 10 toward the shaft 2 and pulley 1 to take up the wear of the pulleys and keep the same in proper contact. The upper end of the swinging lever is bifurcated and has pivoted in the bifurcation one end of a connecting rod or bar 11, which has its other end bifurcated and pivotally secured to an operating-lever 12. The lower end of the swinging lever is provided with a transverse opening 13, through which passes a pivot 14, which is journaled in bearing-openings 15 of longitudinally-adjustable bars 16, which are adapted to change the fulcrum-point of the swinging lever 10 to facilitate the adjustment of the pulley 6. The longitudinally-adjustable bars are provided with threaded ends 17, and are arranged in recesses formed by blocks 18, secured to the upper face of the sill 4, and the latter is provided with a recess 19 in its upper face to receive the lower end of the swinging lever 10. The threaded ends of the adjustable bars are engaged by nuts which bear against the opposite ends of the blocks 18, and the sill 4 is recessed at the ends of these blocks to make the shoulders formed by them more pronounced. By screwing the nuts the bars can be moved longitudinally and the fulcrum-point of the swinging lever can be adjusted, as desired. The longitudinally-adjustable bars are retained in the recesses by screws 21, which have squared heads to be readily engaged by a wrench or similar instrument, and are provided with collars 22, which have curved extensions 23 that engage the said bars.

The periphery of the small pulley 6 is slightly beveled; and it will be seen that by the construction above described the pulley 6 can be readily adjusted relative to the pulley 1 and be maintained at the proper point of contact.

What I claim is—

1. The combination of the sill, the longitudinally-adjustable bars mounted on the sill and having threaded ends and provided with bearing-openings, the swinging lever provided at its lower end with a transverse opening, the pivot passing through the bearings of the said bars and the opening of the swinging lever and pivotally connecting the latter to

the bars, the pulley 1, mounted upon a shaft, the shaft 7, arranged at an angle to the shaft of the pulley 1, the pulley 6, the pulley mounted upon the shaft 7, and means for operating the
5 swinging lever, substantially as described.

2. The combination of the sill 2, the longitudinally-adjustable bars having threaded ends and provided with bearing-openings, the screws provided with collars engaging the
10 bars, the swinging lever provided at its lower end with a transverse opening, the pivot passing through the bearing-openings of said bars and the opening of the swinging lever and

pivotaly connecting the latter to the bars, the pulley 1, mounted upon a suitable shaft, 15 the shaft 7, arranged at an angle to the shaft of the pulley 1, the pulley 6, mounted upon the shaft, and means for operating the swinging lever, substantially as described.

In testimony that I claim the foregoing as 20 my own I have hereto affixed my signature in presence of two witnesses.

DE WITT C. FURMAN.

Witnesses:

F. B. CHRISTMAN,
GEO. O. JONES.