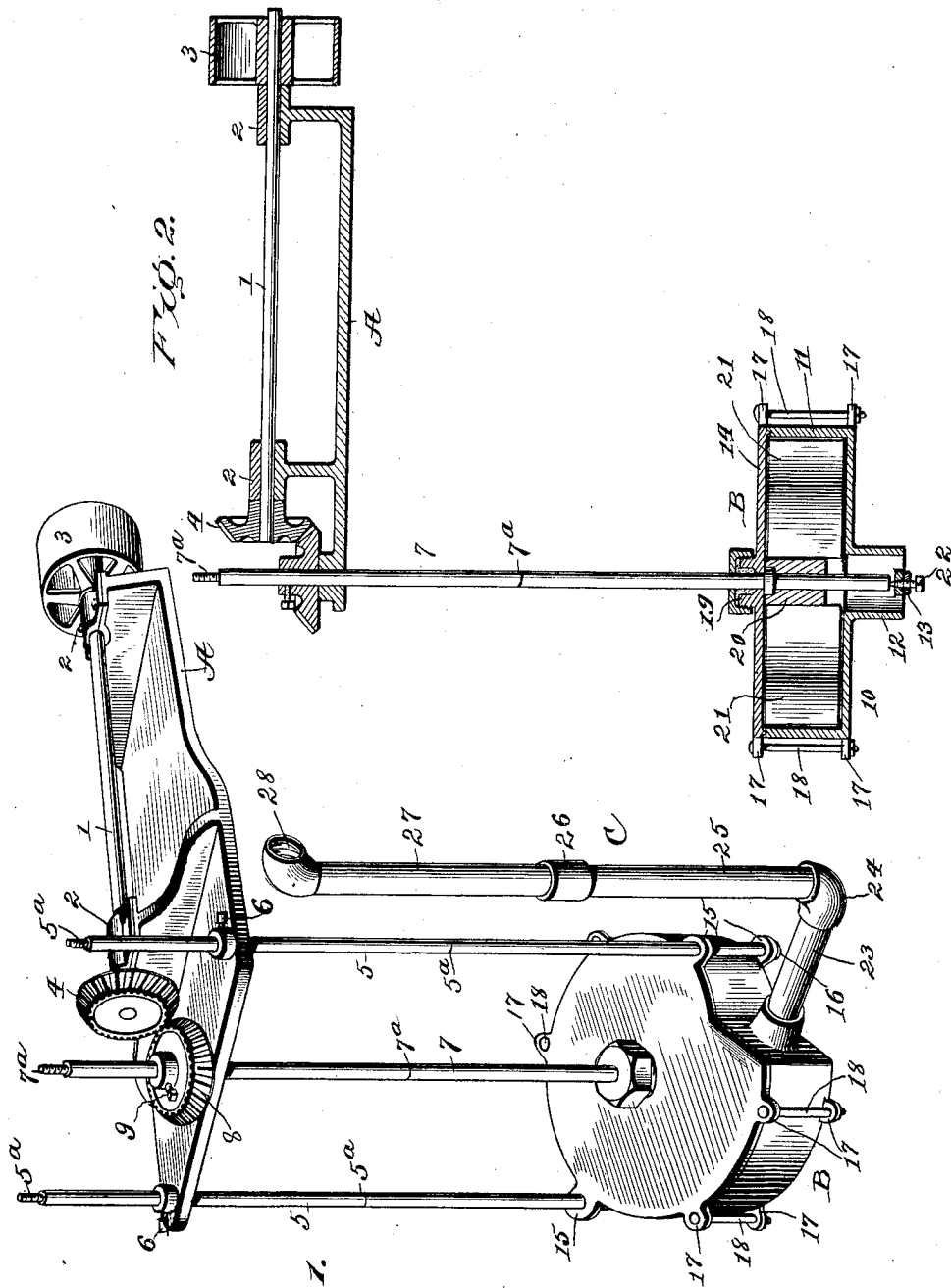


No. 829,017.

PATENTED AUG. 21, 1906.

J. JORDAN.
PUMP.

APPLICATION FILED JUNE 17, 1905.



Witnesses

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Fig. 1.

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JOHN JORDAN, OF EBENEZER, TENNESSEE.

PUMP.

No. 829,017.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN JORDAN, a citizen of the United States, residing at Ebenezer, in the county of Knox and State of Tennessee, have invented a new and useful Improvement in Pumps, of which the following is a specification, reference being had to the accompanying drawings.

My improvement relates particularly to centrifugal pumps for raising water from excavations during the progress of engineering-work. The pump may also be used for raising water from cisterns or other reservoirs.

The object of the invention is to produce an apparatus which may be economically built and which while of ample capacity may be so dismembered as to be readily transported and assembled and placed into position for work.

In the accompanying drawings, Figure 1 is a perspective view of an apparatus embodying my improvement. Fig. 2 is an upright central section.

In said drawings, A is a base which rests upon any wall, pier, or other similar support at the side of the excavation or reservoir from which water is to be drawn.

A horizontal driving-shaft 1 is seated in bearings 2 2 on the base A. Power is transmitted to said shaft by means of a band-wheel 3, mounted upon one end of said shaft. On the other end of said shaft is secured a bevel-gear 4. Adjacent said bevel-gear and at opposite sides of and approximately equidistant from a prolongation of the axial line of the driving-shaft 1 are two upright columns or rods 5 5, extending slidably through the base A and adapted to be secured to said base at different elevations by means of set-bolts 6. To the lower ends of said columns is secured the pump-casing B, the axis of said casing being upright and parallel to said columns.

A driving-shaft 7 extends from the middle of said casing upward through the base A, and above said base said shaft is surrounded by a bevel-gear 8, which meshes with the aforesaid bevel-gear 4. Said shaft 7 is slidable through said base and said bevel-gear 8, and a set-bolt 9 extends through the hub of the gear 8 and bears against the shaft 7. When the set-bolts 6 and 9 are loosened, the casing B may be raised or lowered by sliding the columns 5 and the rotary shaft 7 in the base A.

The casing B is composed of the floor 10, the upright wall 11, preferably integral with

the floor, a neck 12, extending downward at the middle of said floor and having across its open bottom a bridge 13, and a lid or top plate 14. Said floor 10 and top plate 14 are provided with lateral ears 15, through which the columns 5 extend, each column being provided at its lower end with a head or nut 16, and said floor and top plate are also provided with lateral ears 17, located one above the other. Bolts 18 extend through said ears 17 and bind the top plate to the bottom 10 and upright wall 11. A suitable packing-box 19 surrounds the shaft 7 on the top plate 14. A hub 20 is immovably secured to the shaft 7 within the pump-casing, and from said hub extend ordinary centrifugal wings 21. Upward through the bridge 13, which extends across the open portion of the neck 12, extends a set-bolt 22 and bears against the lower end of the shaft 7.

A discharge-pipe C leads from the pump-casing. In the form shown by the drawings said pipe consists of a horizontal section 23, joined to the casing B, an elbow 24, an upright pipe-section 25, a coupling 26, an upright pipe-section 27, and an elbow 28, applied to the upper end of the pipe-section 27. Obviously said pipe may be modified in form. The columns 5 5 have separable joints, as shown at 5^a, and the rotary shaft 7 has separable joints, as shown at 7^a. Thus it will be seen that the apparatus is well adapted for placing the casing B of the pump at any desired elevation. When an excavation is begun, said pump-casing may be close against the lower face of the base A, the columns 5, the shaft 7, and the pipe C being correspondingly short. Then as the excavation is deepened said casing may be from time to time lowered, more sections being added to the upper ends of the columns 5, the shaft 7, and the pipe C as may be needed.

If the apparatus is small enough to be light, the casing B may be raised or lowered by hand; but if the apparatus is heavy said casing may be raised or lowered by means of a tackle or windlass.

It will be observed that the apparatus is well adapted for dismemberment for convenient transportation, setting, and removal. The pipe C, the casing B, the columns 5 5, and the shaft 7 may be entirely disconnected and taken to pieces, and even the driving-shaft 1, with its bevel-gear and pulley, may be taken from the base A by opening the bearings 2 2. Thus any one piece of the dis-

membered apparatus may be light enough
and small enough to be conveniently trans-
ported and easily put into position for opera-
tion and easily removed when the appara-
tus has completed its work.

I claim as my invention—

The combination of a horizontal portable
base, A, a horizontal shaft resting in bearings
on said base, upright columns applied slid-
ably to one end of said base, a centrifugal
pump-casing secured to the lower ends of
said columns, a hub and centrifugal wings
located within said casing, an upright shaft

joined to said hub and slidably journaled to
said base, a bevel-gear, 8, adjustably applied
to said shaft, a bevel-gear, 4, applied to said
horizontal shaft and meshing with said bevel-
gear, 8, and a discharge-pipe leading from
said casing, substantially as described.

In testimony whereof I have signed my
name, in presence of two witnesses, this 9th
day of June, 1905.

JOHN JORDAN.

Witnesses:

M. O. FRENCH,
T. L. PETERS.