

No. 840,138.

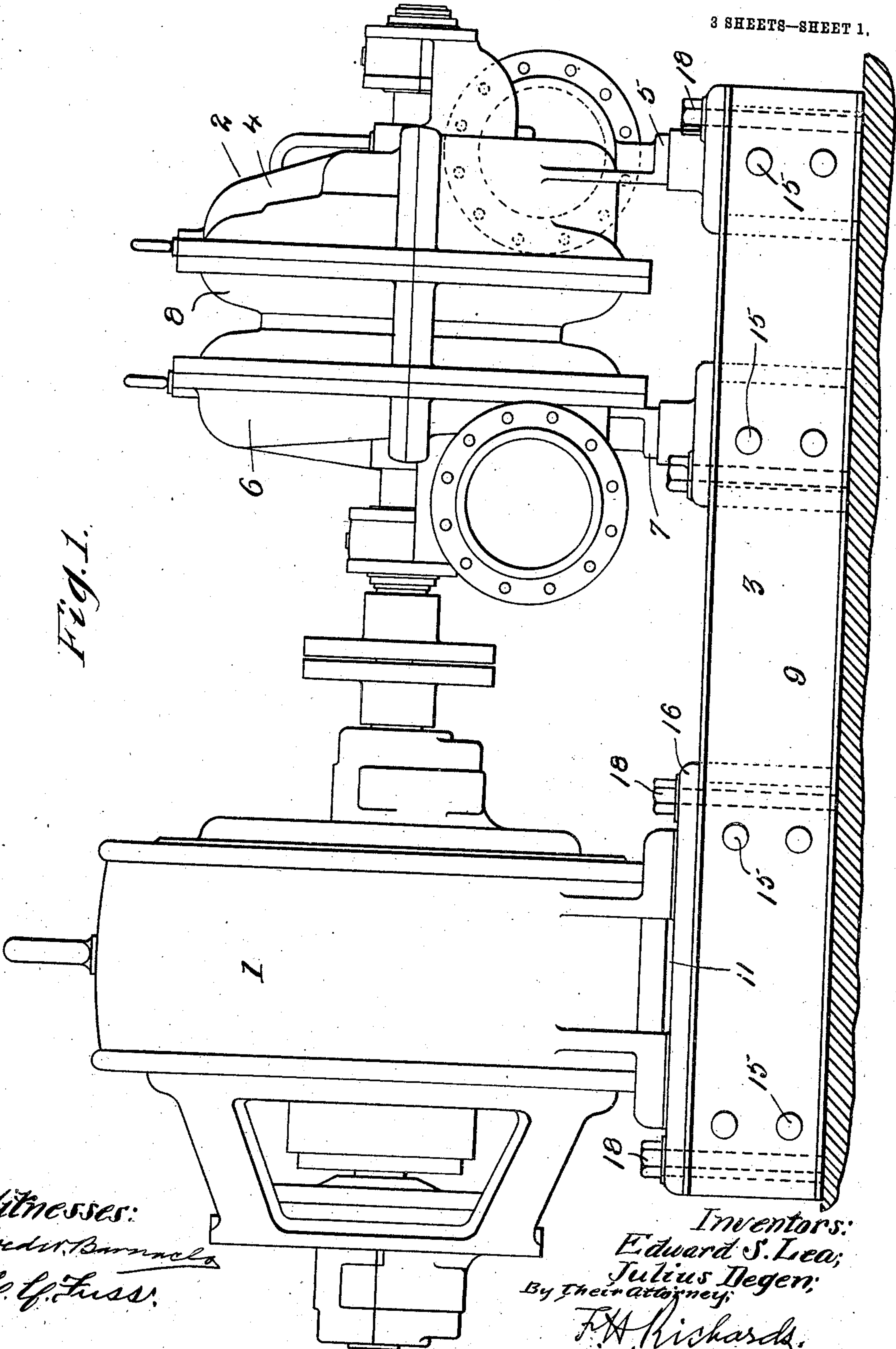
PATENTED JAN. 1, 1907.

E. S. LEA & J. DEGEN.
PUMP BASE.

APPLICATION FILED JUNE 2, 1905.

3 SHEETS—SHEET 1.

Fig. 1.



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Inventors:
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By their attorney,
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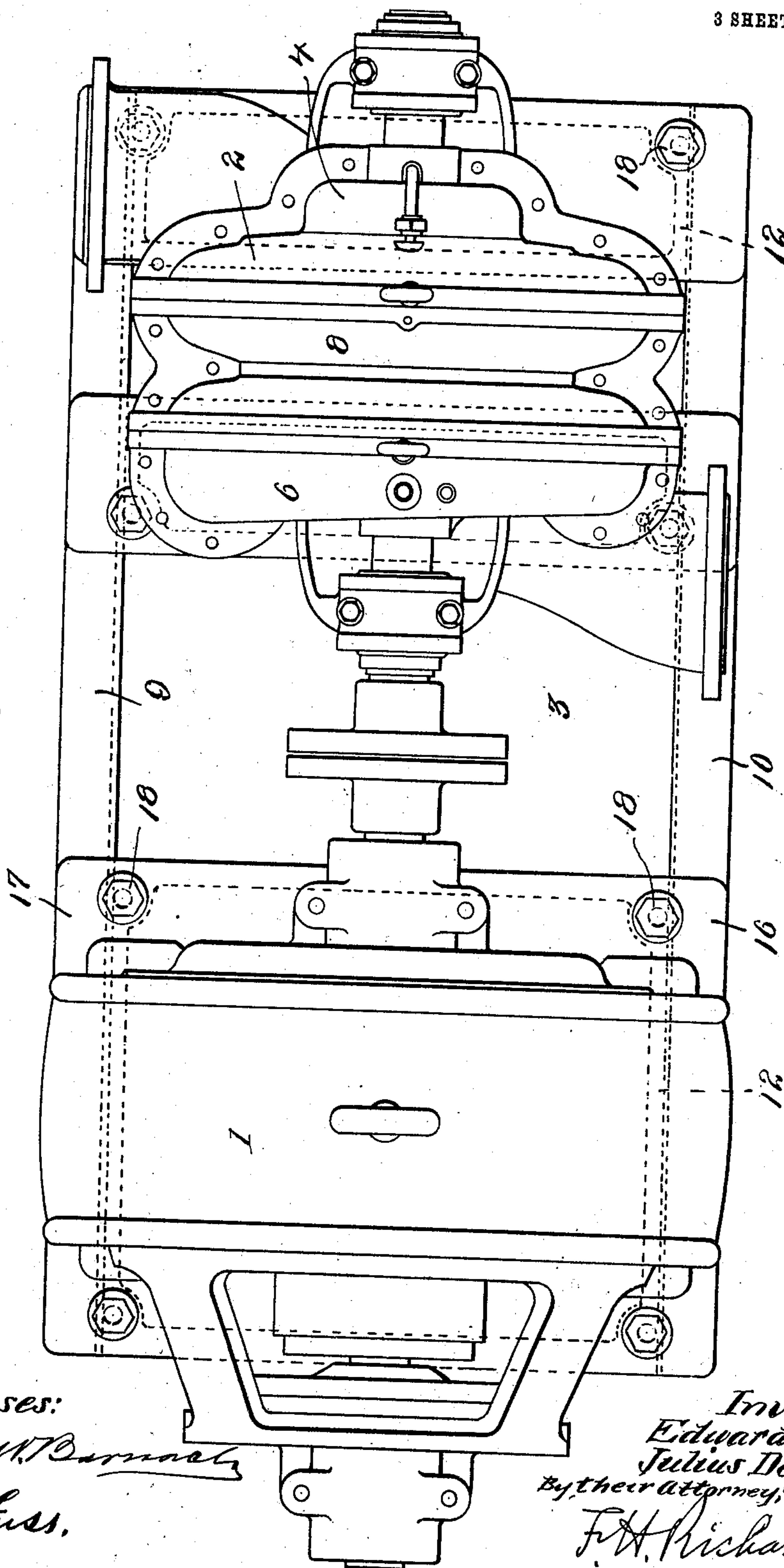
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APPLICATION FILED JUNE 2, 1905.

3 SHEETS—SHEET 2.

Fig. 2.



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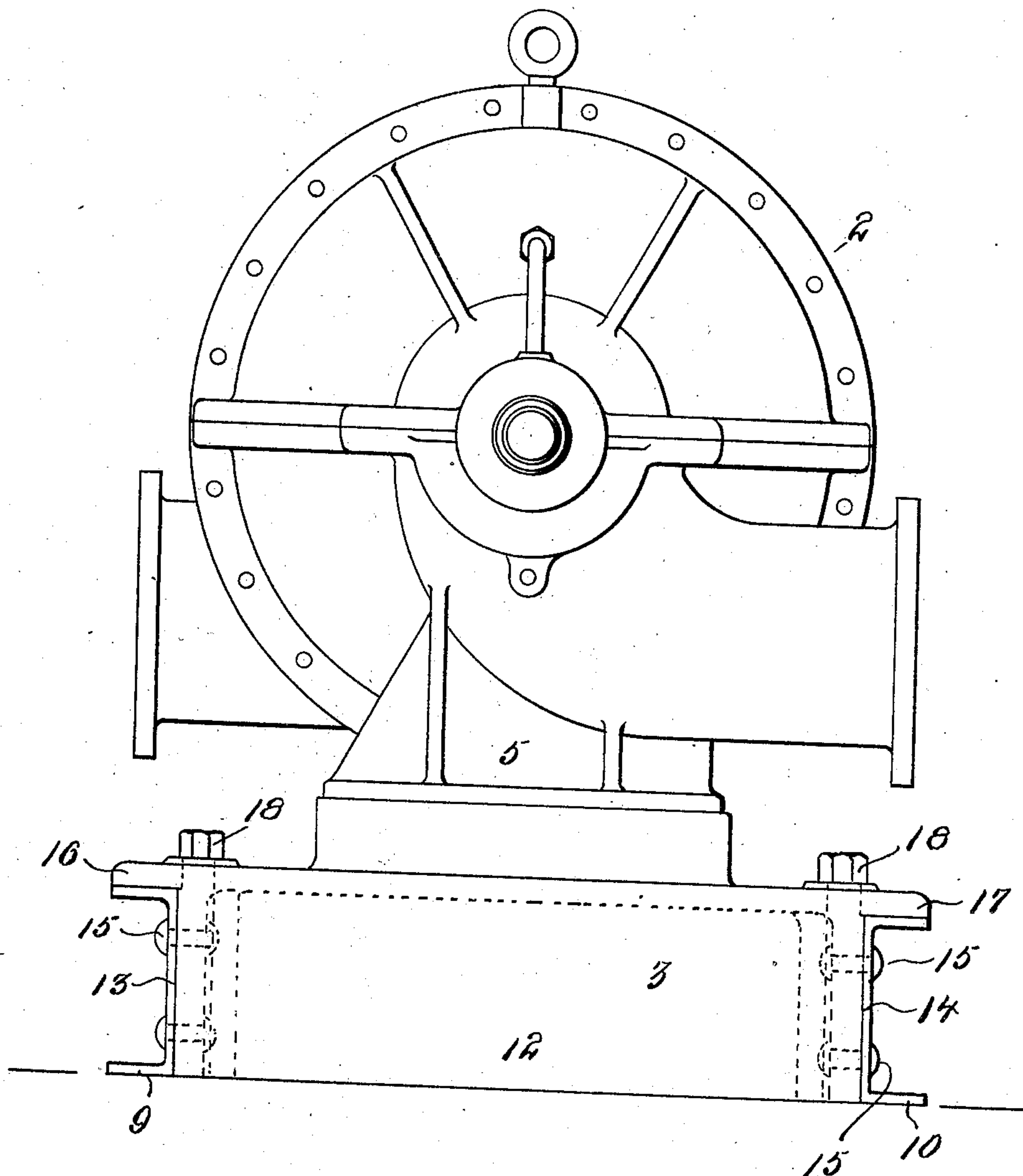
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APPLICATION FILED JUNE 2, 1906.

3 SHEETS—SHEET 3.

Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD S. LEA AND JULIUS DEGEN, OF TRENTON, NEW JERSEY,
ASSIGNORS, BY MESNE ASSIGNMENTS, TO LEA-DEGEN PUMP
COMPANY, OF TRENTON, NEW JERSEY, A CORPORATION OF
NEW JERSEY.

PUMP-BASE.

No. 840,138.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed June 2, 1905. Serial No. 263,416.

To all whom it may concern:

Be it known that we, EDWARD S. LEA, a citizen of the United States, and JULIUS DEGEN, a citizen of the Republic of Switzerland, residing at Trenton, in the county of Mercer, State of New Jersey, have invented certain new and useful Improvements in a Pump-Base, of which the following is a specification.

The object of our invention has been to provide a pumping apparatus, consisting of a motor, a pump, and a base, which is adapted for readily changing the pump to a greater or less number of stages with little expense; and to such ends our invention consists in the pumping apparatus hereinafter specified.

In the accompanying drawings, Figures 1, 2, and 3 are respectively a front elevation, a top plan view, and an end elevation of an apparatus embodying our invention.

That embodiment of our invention which is illustrated in the drawings comprises a motor 1 and a pump 2, supported by a base 3. The pump comprises a suction-head 4, having a leg 5, and a delivery-head 6, having a leg 7, the suction-head and delivery-head being united by a section 8, which, with the two heads, forms two chambers in which are mounted two impellers, thus making a two-stage centrifugal pump. The suction and delivery heads and their supporting-feet are formed of separate castings, so that a greater or less number of sections 8 may be put between the suction and delivery heads and a corresponding number of impellers used to form a pump of any desired number of stages without the necessity for providing anything more than the new sections 8, which may be used. By this arrangement the expense of changing from one stage pump to another is comparatively slight, the only expense being to increase or decrease the number of sections 8 and of the impellers.

To enable the pump to be readily changed from a pump of one number of stages to another, we provide a base which is exceedingly cheap, while being very effective for its pur-

pose. Our base consists simply of two channel-beams 9 and 10, which are stood upon one of the flanges on the foundation for the pump and which are secured to the feet 5 and 7 and to the base of the motor. Each foot 5 and 7 and the base 11 of the motor consists of a block 12, having vertical sides 13 and 14, to which the channel-beams 9 and 10 are secured, as by rivets 15, the said feet and base having flanges 16 and 17, which respectively overlie and rest upon the upper flanges of the channel-beams 9 and 10. Bolts 18 pass through the feet 5 and 7 and through the motor-base inside the channel-beams and down into the foundation, and thus secure the pumping apparatus upon the foundation. The channel-beams not only serve to rigidly secure the motor and pump together, but they serve to aline the shafts of the motor and pump, so that the apparatus is readily assembled.

When it is desired to decrease the number of stages in the pump, the suction-head is disconnected from the channel-beams and the desired number of sections 8 is removed from the pump, the suction-head being moved up against the remaining section 8 or the delivery-head and being again secured to the channel-beams and bolted to the foundation. The channel-beams may, if desired, be cut off to correspond to the new length of the apparatus, or they may be replaced by shorter beams. When it is desired to increase the number of stages in the pump, it is only necessary to provide longer channel-beams to correspond to the new length of the apparatus. The channel-beams being obtainable in any desired length, it is easy to adapt the base to any number of stages in the pump.

Of course other forms of rolled stock can be used in the place of the channel-beams, the feet 5 and 7 and the motor-base 11 being correspondingly shaped.

We claim—

In a pumping apparatus, the combination of a motor, a centrifugal pump, said pump

comprising a delivery-head having a support-
ing-foot, a suction-head having a supporting-
foot, and casing-sections connecting said
heads, whereby said sections may be in-
5 creased or decreased in number to vary the
number of stages in the pump, and a pump-
base adapted to accommodate the corre-
spondingly-varying length of the apparatus,
said base consisting of parallel beams to
10 which said motor and the feet of said pump-

heads can be secured at any required point
and yet be in line with each other.

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