C. W. SHARTLE.

PUMP GANG.

APPLICATION FILED APR. 6, 1910.

1,020,161. **Patented Mar. 12, 1912.**

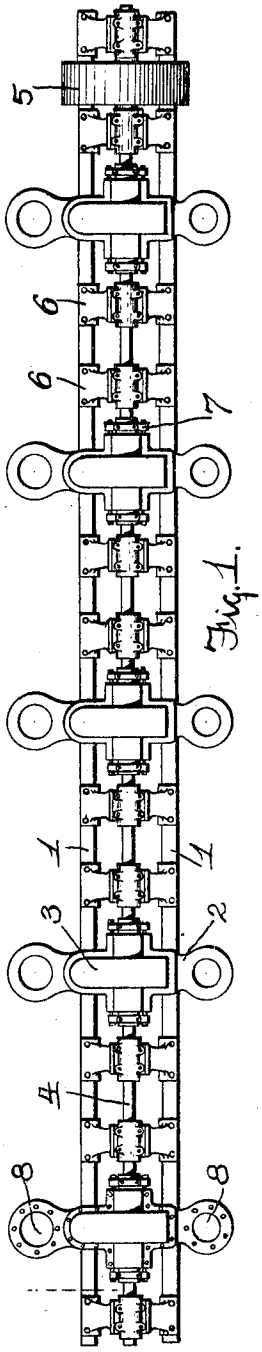

Fig. 1.

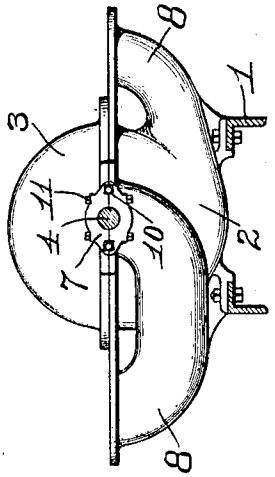

Fig. 3.

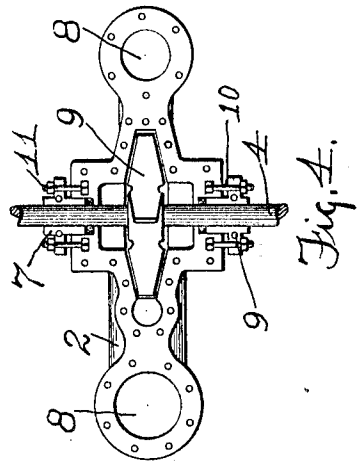

Fig. 4.

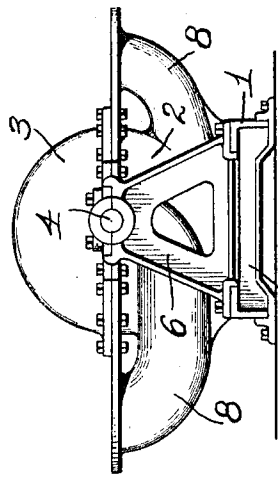

Fig. 2.

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UNITED STATES PATENT OFFICE.

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PUMP-GANG.

1,020,161. Specification of Letters Patent. Patented Mar. 12, 1912.

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To all whom it may concern:

Be it known that I, CHARLES W. SHARTLE, a citizen of the United States, residing at Middletown, Butler county, Ohio, have invented certain new and useful Improvements in Pump-Gangs, of which the following is a specification.

This invention pertaining to improvements in pump-gangs will be readily understood from the following description taken in connection with the accompanying drawing in which:—

Figure 1 is a plan of a pump-gang embodying my invention: Fig. 2 an end view of the same, as viewed at the left-hand end of Fig. 1: Fig. 3 a vertical transverse section: and Fig. 4 a plan of one of the individual pumps with the casing-top and gland-tops removed.

In the drawing:—1, indicates a pair of parallel sole-bars: 2, a longitudinal series of casing-bases secured to the sole-bars: 3, a casing-top secured to the top of each casing-base, each casing-top in conjunction with its casing-base forming the chamber of a fan pump: 4, a shaft extending through the entire series of pump cases, the axis of this shaft being in the horizontal plane of the joints between the tops and the bases of the casings: 5, a pulley fast on the shaft, by means of which the pumps are operated by belt power: 6, bearing-stands secured to the sole-bars, the bearings of these stands being divided horizontally in the plane of the axis of the shaft: 7, packing-glands on the shaft at each side of each pump-casing and engaging stuffing-boxes in the hubs of the casings, each packing-gland being formed in two halves united by a joint in the plane of the axis of the shaft: 8, the inlets and outlets of the pump-casings, the same being formed on the casing-bases and terminating at their tops in the plane of the division between the bases and tops: 9, the pump impellers, there being one of these impellers fast on the shaft within each pump-casing: 10, the bolts by means of which the packing-glands are drawn into the stuffing-boxes, these bolts passing through the flanges of the glands in the joint of separation between the two gland halves: 11, joint bolts passing through the two gland halves of each gland and binding the two halves together: and 12, foot pieces connected with the sole-bars.

By means of this construction a single belt may operate all of the pumps of the gang, thus reducing the number of belts needed and the danger of belt-damage under the sloppy conditions under which fan pumps are often used. Any individual casing-top may be removed, to give access to the interior of the pump, without disturbing any other portion of the structure and without breaking any of the inlet or outlet connections. The casing-tops may all be removed and the bearings of the stands uncapped, thus permitting the shaft with all of the impellers being lifted out of the structure. To permit this the glands must first be removed by separating the halves of the glands.

I claim:—

1. A fan-pump comprising, a casing-base, a casing-top secured thereto, there being a horizontal line of division between the top and base, an inlet and an outlet to the casing terminating on the plane of division between the top and base, a shaft passing through the casing in the plane of the joint between the top and the base, an impeller on the shaft within the casing, and a packing gland engaging the shaft at each side of the casing, combined substantially as set forth.

2. A fan-pump comprising, a casing-base, a casing-top secured thereto, there being a horizontal line of division between the top and base, an inlet and an outlet to the casing terminating on the plane of division between the top and base, a shaft passing through the casing in the plane of the joint between the top and the base, an impeller on the shaft within the casing, and a packing gland engaging the shaft at each side of the casing, said packing-glands being divided in the plane of the axis of the shaft, combined substantially as set forth.

3. A pump gang comprising a sole-structure, a plurality of pump casings secured thereto, a shaft extending through all the casings, driving means on the shaft, an im-

peller on the shaft within each casing, packing-glands on the shaft at each side of each casing, bearing-stands for the shaft, supported on the sole-structure and disposed on both sides of each pump casing, the pump casings, packing-glands and bearing-stands all being separable on a plane with the axis of the shaft, and inlet and outlets to the pump casing terminating also in the plane with the axis of the shaft.

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Witnesses:
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