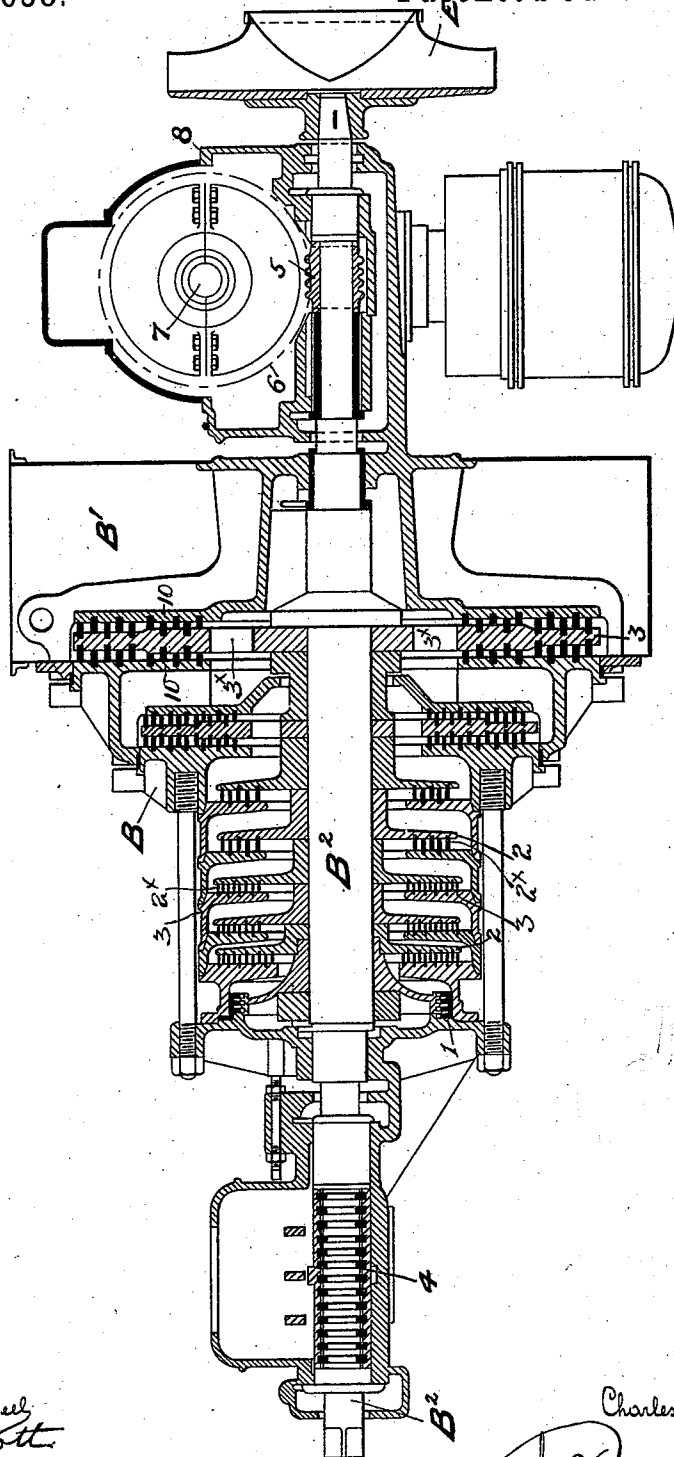


(No Model.)

C. A. PARSONS.
TURBINE MOTOR.

No. 553,658.

Patented Jan. 28, 1896.



Witnesses
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E. A. Scott

Inventor
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UNITED STATES PATENT OFFICE.

CHARLES ALGERNON PARSONS, OF NEWCASTLE-UPON-TYNE, ENGLAND.

TURBINE MOTOR.

SPECIFICATION forming part of Letters Patent No. 553,658, dated January 28, 1896.

Application filed February 21, 1895. Serial No. 539,197. (No model.) Patented in England June 27, 1891, No. 10,940.

To all whom it may concern:

Be it known that I, CHARLES ALGERNON PARSONS, a subject of the Queen of Great Britain, residing at Newcastle-upon-Tyne, county of Northumberland, England, have invented a new and useful Improvement in Turbine Motors, of which the following is a specification, the invention having been patented by me in England, No. 10,940, dated June 27, 1891.

My invention relates to turbines of the radial-disk construction, and includes high-pressure disks with fixed rings between them having blades projecting laterally to form passages and a low-pressure disk on the turbine shaft of radial-disk construction having blades on opposite sides and having perforations at the central portion for the passage of the steam through to the opposite side of the disk.

The drawing shows a longitudinal section of the invention.

B² is the turbine shaft carrying at 4 the thrust-collars and block. The disks 2 are fixed to the shaft and have lateral blades 2^x. Rings 3, having lateral blades, extend inwardly toward the shaft and provide, in conjunction with the disks, the circuitous passage for the steam, which enters first between the dummy-piston 1 and the first disk 2 and after acting on the high-pressure disks 2 in succession reaches the large low-pressure disk 3, which has perforations 3^x at its central portion through which the steam passes and then radially outward, acting on the blades 10 car-

ried on opposite sides of the low-pressure disk. Stationary rings on each side of this low-pressure disk carry lateral blades in a manner similar to those described to act in conjunction with the blades of the low-pressure disk. The steam then passes to the exhaust-chamber B', whence it passes to the surface condensers. A worm 5 on the shaft B² operates the worm-wheel 6 contained in the casing and oil-bath 8, and this worm-wheel by the shaft 7 actuates an air pump or pumps or other machine to be driven. A fan E may be also arranged on the shaft B² to supply a forced draft to the furnace.

I claim—

In a steam turbine, a shaft, high pressure disks thereon having lateral blades, fixed rings intermediate of the disks having lateral blades alternating with the blades of the disks, said rings extending inwardly toward the shaft, and providing passages to direct the steam inwardly and a low pressure disk of larger diameter having blades on its opposite sides and rings with blades for said disk said low pressure disk having perforations at the central portion for the passage of the steam through to the opposite side of the disk, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

CHARLES ALGERNON PARSONS.

Witnesses:

FREDERIC SMITH,
JOHN HETHERINGTON.