

Capitol, Washington, U. S. A.

UNITED STATES PATENTS.

Specially selected and abridged by Messrs Siggers and Siggers, Patent Attor 918 F. Street, N. W., Washington, D.C., U.S.A. neys,

Phase-adjusting Means for Alternating-current Motors.— Benj. C. Lamme, Pittsburg, Pa., Assignor to Westinghouse Electric and Mfg. Co., Pittsburg, Pa.—839.935, 1907.—This invention relates to alternating-current motors of the com-mutator type of construction; and its object is to provide improved means for supplying energy to such motors from



multiphase sources, whereby the proper phase relations of Indulphase sources, whereby the proper phase relations of the currents traversing the armature and field-magnet windings for the most efficient and economical operation may be secured. It consists of the combination with a source of three-phase alternating-current energy and an electric motor having armature and field-magnet windings, of an autotransformer-winding having its terminals con-nected between two of the supply-conductors from the source, means for connecting the armature-winding between any two points in said autotransformer winding. any two points in said autotransformer-winding, and means for varying the connection of one terminal of the fieldmagnet winding with points near the middle of the auto-transformer-winding, the other terminal of the field-magnet winding being connected to the third supply-conductor.

Turbine.—George Rischmuller, San Francisco, Cal.— 842,423. 1907.—This invention relates to improvements in turbines, the object of this invention relates to improvements in tur-bines, the object of this invention being, first, to provide a turbine which can be constructed at a comparatively small cost, requiring very little machining or fitting of parts; second, to provide one which will be as small and compact as possible for a given development of power, and for this purpose to so construct it that at no time shall there be any dead steam contained in any of the recesses of the turbine; third, to provide one in which the recesses for admitting the steam shall vary but slightly in size, and shall be distributed as evenly as possible over the surfaces of the moving member, and yet at the same time allow for the expansion of the steam in passing from one series of recesses to anof the steam in passing from one series of recesses to an-other; fourth, to provide one in which the pressure on both sides of the movable member shall be evenly balanced, thereby avoiding any vibration or undue friction; fifth, to provide a construction in which the steam shall enter and leave the recesses in the most effective manner for imparting its momentum to the movable member. It consists of a shaft, a disk secured on said shaft, and rotating between said sections, and having on each side a concentric series

runner and the outer side oblique thereto, and an escape side, the adjacent casing-section outer having correa sponding concentric series of annular steam-chambers, a concentric series of annular groups of ducts registering with the inner sides of pockets of the respective groups, and



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leading from the outermost portions of the annular steamchambers, said casing-section having also means for per-mitting escape of the steam from the escape sides of the mitting escape of the steam from the escape sides of the pockets into a steam-chamber, the ducts in each group in-creasing in number from the centre to the circumference, and means for admitting steam to the innermost steam-chamber at each side and exhausting it from the escape sides of the outermost group of pockets.

Governing Mechanism for Turbines-Oscar Junggren, Schenectady, N.Y.-848,106.-1907.-This invention relates to mechanism for governing the speed of steam-turbines; and its object is to modify existing structures with a view to also to lessen the weight. A further object is to correct a tendency to "hunt," which has been observed in prior structures of this kind.



It consists of mechanically-operated nozzle-valves, of a liquid-pressure motor for operating them, means for causing of annular groups of pockets, each pocket having an impact inner side, each pocket opening its whole length into the side of the runner, the inner side being concentric to the resistance to movement, and an air-chamber.