The 100 H.P. Tesla turbine at the Edison plant, above referred to, is shown in the accompanying photograph E of drawing No. 147, and photograph F. The rotor, as shown in the longitudinal section of the said drawing is composed of plane disks riveted together with interstices between them. The sectional view in drawing No. 147 shows the central openings of the disks by which the steam leaves the rotor after having traversed it in its free spiral path. As seen in section at C, D the steam, entering tangentially from above, leaves the rotor at both sides, passing into the exhaust chamber. [Ed. see pages 31 and 112]

The following table gives the results of tests made by Mr. Tesla and myself to show the performance of this turbine.

R.P.M.	Gauge pressure at nozzle	Vacuum at Exhaust
18,000	176 lbs.	21"
Effective Load	**Water Consumption per hour**	**Steam Consumed per H.P. hour**
77 H.P.	2700 lbs.	35 lbs.

The application of vacuum to that turbine at the same load and speed did not change the steam consumption on account of the small exhaust ports and pipe; from which I draw the conclusion that with an exhaust pressure above atmospheric pressure the steam consumption would have been still better.

This efficiency of conversion of heat into mechanical power is indeed superior to the best guarantee of any turbine, of corresponding size that I have any knowledge of. The rotor of this machine was only nine and three quarter inches in diameter and not more than two inches wide. I recognize photograph E of drawing No. 147 as correctly representing the construction of the said turbine, and photograph F as correctly showing the said turbine in working condition at the Edison power house, and I furthermore know that this turbine was operated in accordance with the instructions and descriptions in Mr. Tesla's applications for patent above referred to. On the left side of photograph F is shown the turbine proper driving through the reduction gear (shown in the center of the photograph), the generator on the right side of the photograph. [Ed. see page 48]

The two 200 H.P. turbines mentioned above are shown in photograph G of drawing No. 135, and photograph H, both of which are hereto annexed, with the singe exception that the regulating attachment on the left hand side of the longitudinal section was replaced in the tests which I witnessed by an auxiliary device for measuring torque. Both of these machines were provided