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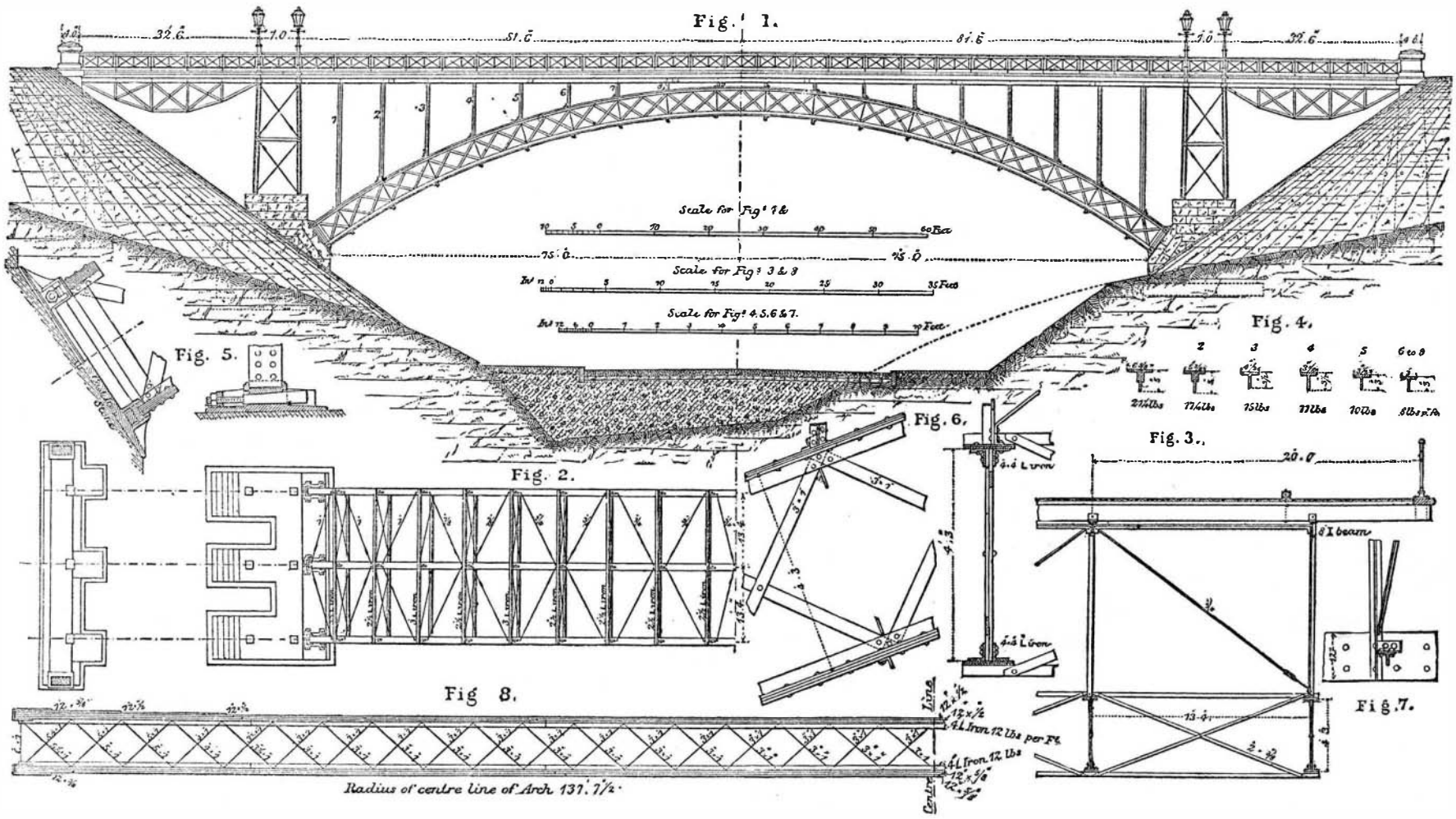
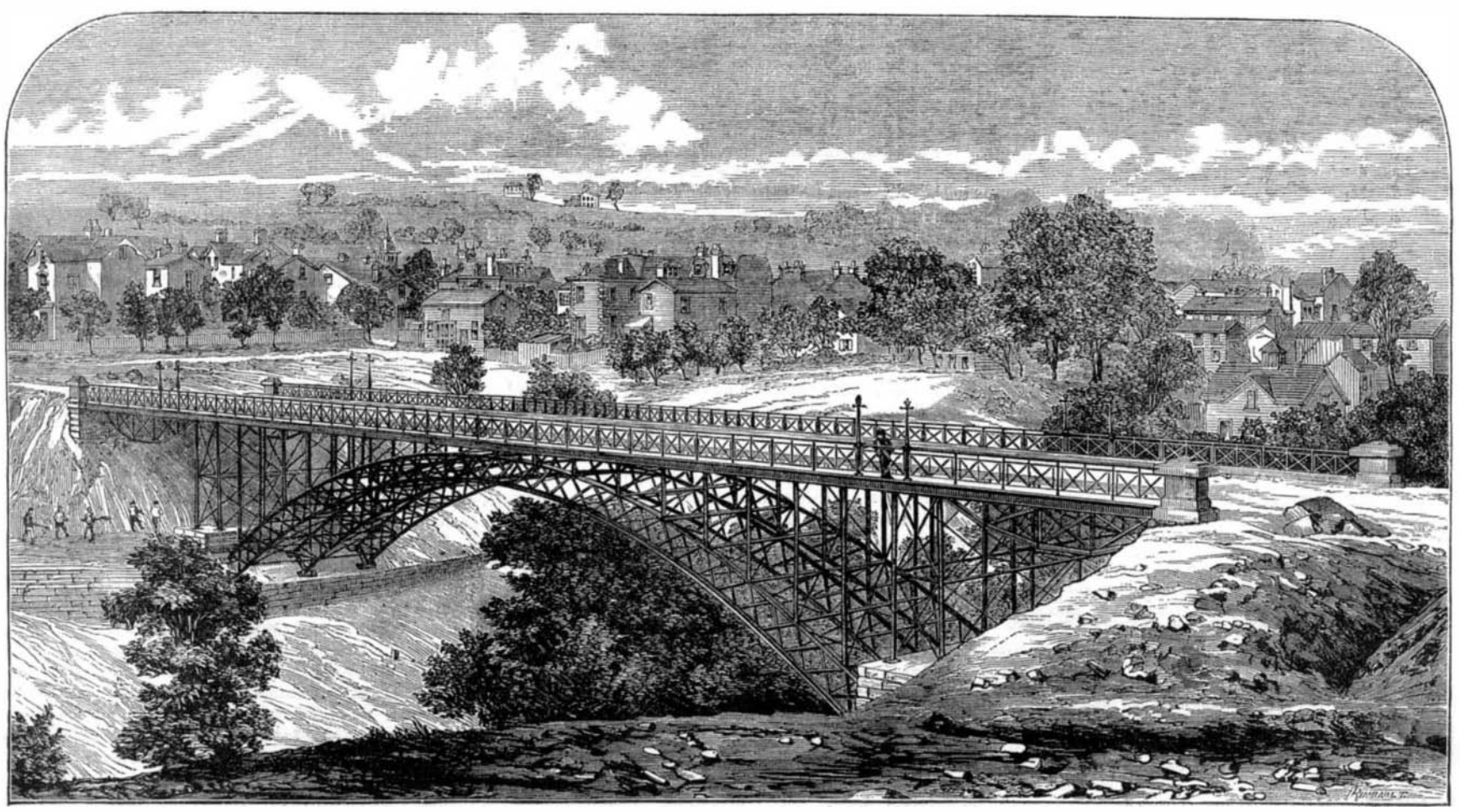
NEW BRIDGE AT PITTSBURGH, PA.

The engraving published herewith represents a bridge erected two years ago at Pittsburgh. The length of the bridge is 250 feet, the clear span 150 feet, and there are side openings of 40 feet each, with roadways and sidewalks along the river's banks passing through them. It was decided by the commissioners who had charge of the work that the bridge should be calculated for a movable load of 100 lbs. per square foot, or 4,000 lbs., per lineal foot, with a factor of safety of 5. The bridge was designed by Mr. Pfeifer, and constructed by the Iron City Bridge Works, of Pittsburgh. The contract price was about $36,000, whereof $12,000 were for the excavation and stone work.

The main arches of the bridge were fitted together in the shop, but taken apart again and put together in place on scaffolding. The ravine crossed by the bridge is for the greater part of the year dry, and will in course of time be occupied by Boundary Avenue, a street of 80 feet in width, making with Forbes street, on the center line of the bridge, an angle of about 60°. In the elevation, Fig. 1, a section through this intended street is shown. The general construction of the bridge, says *Engineering*, to which we are indebted for the illustration, is so clearly shown by the views we give that no detailed description of it will be necessary. We may mention, however, that Fig. 8 is a diagram showing a development of half of one of the arched ribs, the rib being drawn straight instead of curved to its proper radius. The mode of adjusting the bearing of the ribs on the abutments is shown by Fig. 5. The other detail figures will explain themselves





WROUGHT IRON BRIDGE AT PITTSBURGH PA.