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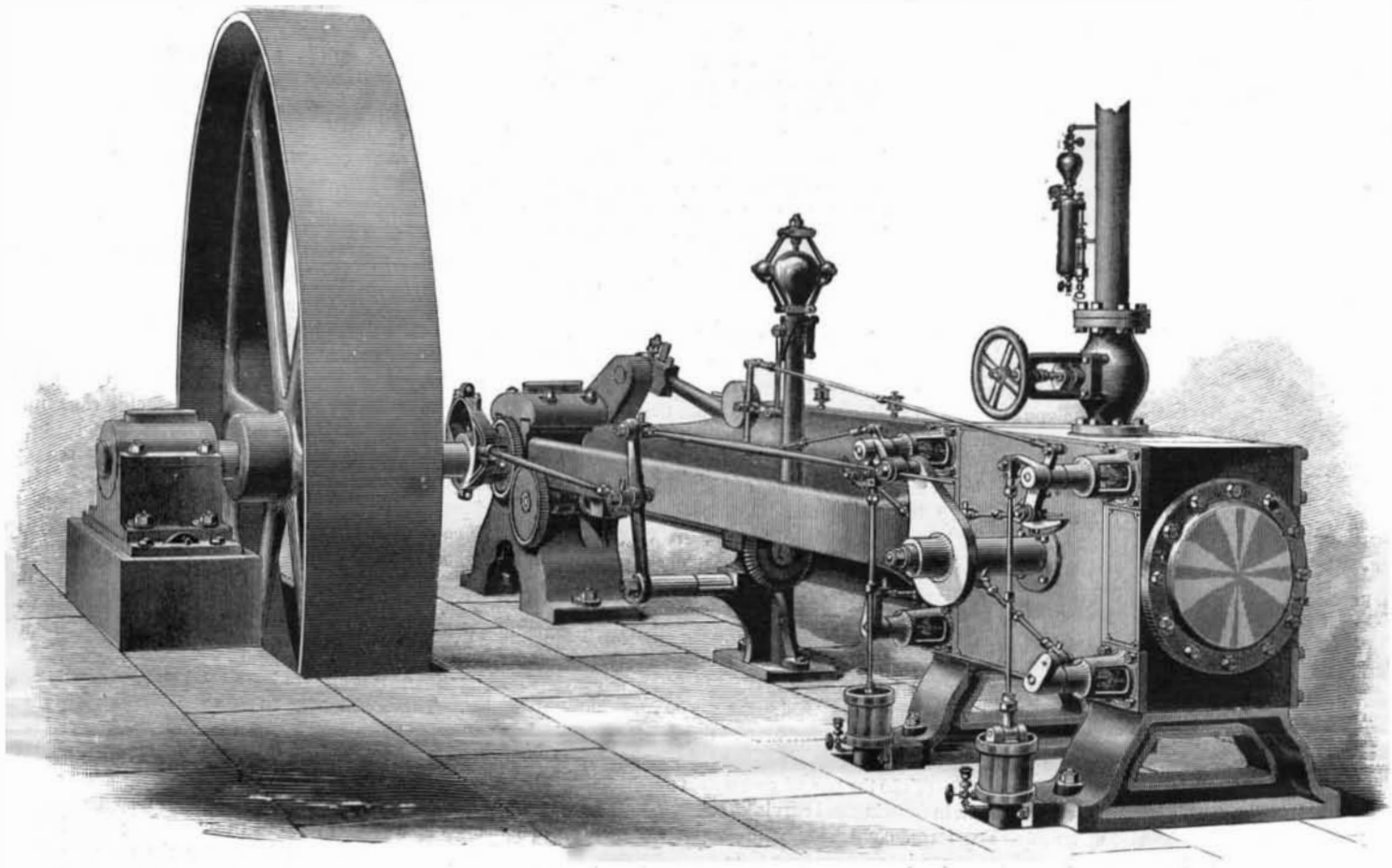
A MODERN STEAM ENGINE.

The Hamilton-Corliss engine shown in our engraving is one in which the highest perfection has been reached by the introduction of every available modern improvement which adds to the economy, regularity, and durability of the machine. The material is disposed to the best advantage for strength, while due attention has been given to beauty of design. The well known Corliss cut-off is used, and very high economy in the use of steam has been secured.

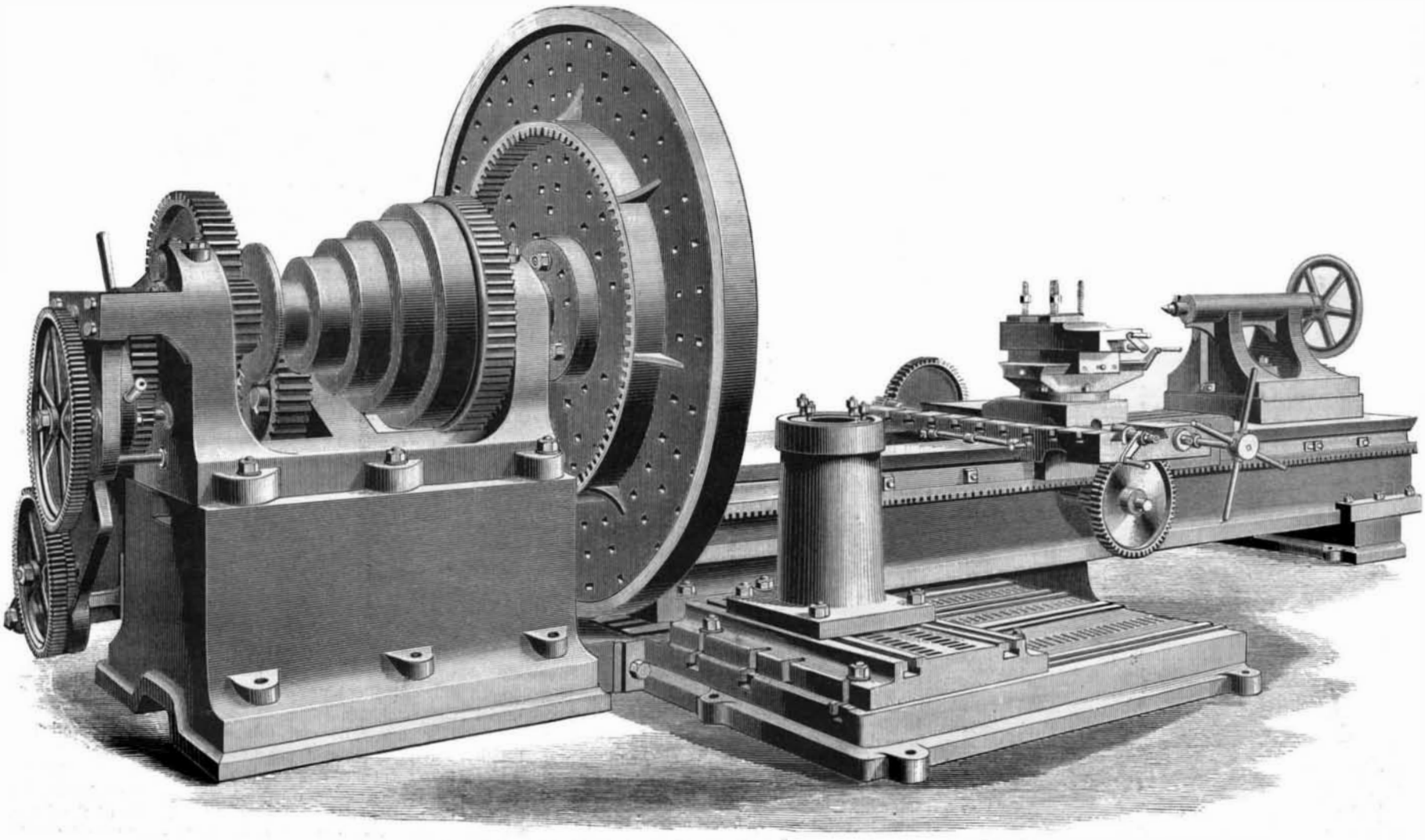
The patterns are all new, and designed according to the modern ideas of steam engineering. The engines are made in sizes varying from 12 × 30 inch cylinder to 24 × 60 inch cylinder. A new high speed governor has been applied which insures a very prompt action of the cut-off, with consequent regularity of motion with a varying load. These engines are manufactured by the Hooven, Owens & Rentschler Co., of Hamilton, O.



THE HAMILTON-CORLISS ENGINE.

ASQUITH'S BRAKE LATHE.

We illustrate a very powerful brake lathe recently constructed by Mr. W. Asquith, of Halifax, and supplied to H. M. Dockyard, at Chatham. The height of the center is 24 in., and the size of the brake sufficient for the reception of an object 8 ft. in diameter and 6 ft. wide. The fast headstock can be worked either in single, double, or treble gear, and has a cast steel spindle working in parallel gun-metal bearings. The face plate is 8 ft. in diameter, and many of the gear wheels are of steel. The loose or sliding headstock is arranged to move transversely for turning taper objects, and is securely fixed to the bed by three bolts. The loose bed is 18 ft. in length, and can be moved in and out by hand or power to vary the width of the brake. The carriage carrying the compound slide-rest derives its self-acting motions for sliding and surfacing from a back traverse shaft, and for screw cutting from a guide screw inside the standing bed. In the front of the brake is a bed-plate provided with a standard for carrying a compound slide rest for turning objects of large diameter. This rest has its self acting motions operated from an overhead feed motion. Its weight is 25 tons; it is, says *Engineering*, a very strong tool, and is calculated to execute the heaviest class of work within the limits of its size.



BRAKE LATHE AT H.M. DOCKYARD CHATHAM.