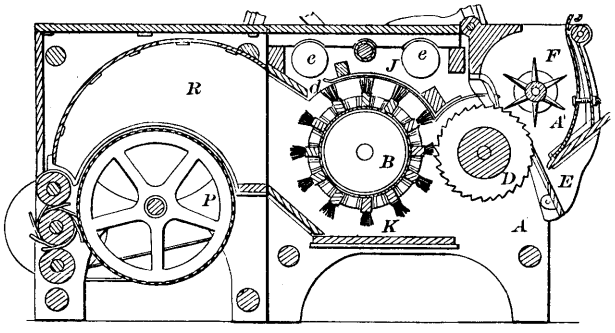
Cot'ton-gin. A device, originally invented by Whitney, 1794, in which lint is picked from the seed by means of saw-teeth projecting through slits in the side of the chamber in which the seed-cotton is placed.

In the example, the cotton occupies chamber *F*, where the picker-roll *A'* rotates. *E* is a grid form-

Fig. 1486.

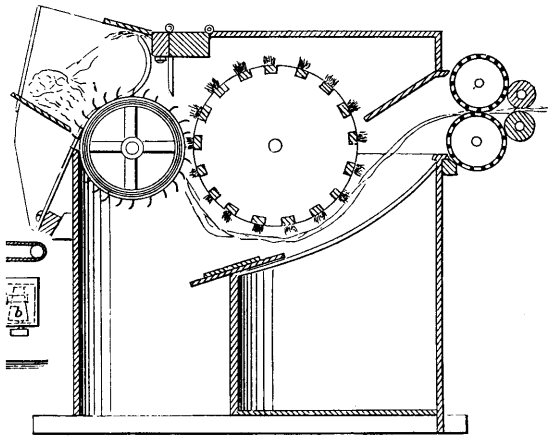


Cotton-Gin.

ing one side of the chamber, and through its intervals pass the teeth of the saws *D*, which are arranged in a row upon a mandrel driven by the motor. The fibers of lint being drawn by the teeth between the bars of the grid *E* are brushed from the saw by the rotating brush-cylinder B, and the heavier specks fall upon the mote-board *K*, while the lint and dust pass to the chamber *R*, and fall upon the wire-gauze surface of the cylinder *P*, the dust passing through and being conducted out of the machine, while the lint is arrested and passes to the doffing and compacting cylinders, from which it issues as a bat.

In Fig. 1487, instead of saws are needle-pointed teeth. The teeth are set obliquely to the radial

Fig. 1487.



Cotton-Gin

lines of the ginning-cylinder, which is composed of segments of rings which admit of separate removal. The cotton is doffed by a brush-cylinder, and received by and condensed between two smooth cylinders, which make it into a bat and allow the dust to pass off.