

## APPENDIX.

BY

MR WATT.

DR ROBISON'S account of Mr Watt's engines terminates here; but it seems necessary to describe and explain certain additions to them which he has either very slightly noticed, or not at all, though they existed before he composed the preceding dissertation; probably they were omitted from his not having had an opportunity of observing them closely.

Parallel  
motion.

The first is the Parallel Motion, which, in the single engines, serves in place of chains, and in the double engines, supplies the place of the rack and sector, which has been described in art. 68. It has been mentioned, that the racks and sectors were very subject to wear, and that, when perfect, they did not move with that smoothness that was wished; and to chains there were many objections. It occurred to Mr Watt, that if some mechanism could be devised moving upon centres, which would keep the piston-rods perpendicular, both in pushing and pulling, that a smoother motion would be attained; and, in all probability, that the parts would be less subject to wear. After some consideration, it occurred, that if two levers of equal lengths were