

*Chemical Laboratory.*—The engraving of the laboratory (see fig. 5), which is from a careful and accurate drawing by Mr. Wild, gives a very faithful idea of the arrangements and fittings in all their details. The artist is supposed to be sitting on the locker seat, and immediately in front of him to the right is seen the blowpipe table, a square deal table, with a cylindrical double-action bellows 8 inches in diameter. It is shown with the leaf up, which was necessary to give support to the arm while working. The air was delivered in a horizontal jet by a nozzle with a ball and socket joint for adjustment. For use with the bellows a glass-blower's lamp with double wick, burning tallow, was supplied. This form of lamp was not found satisfactory, being dirty and cumbersome,

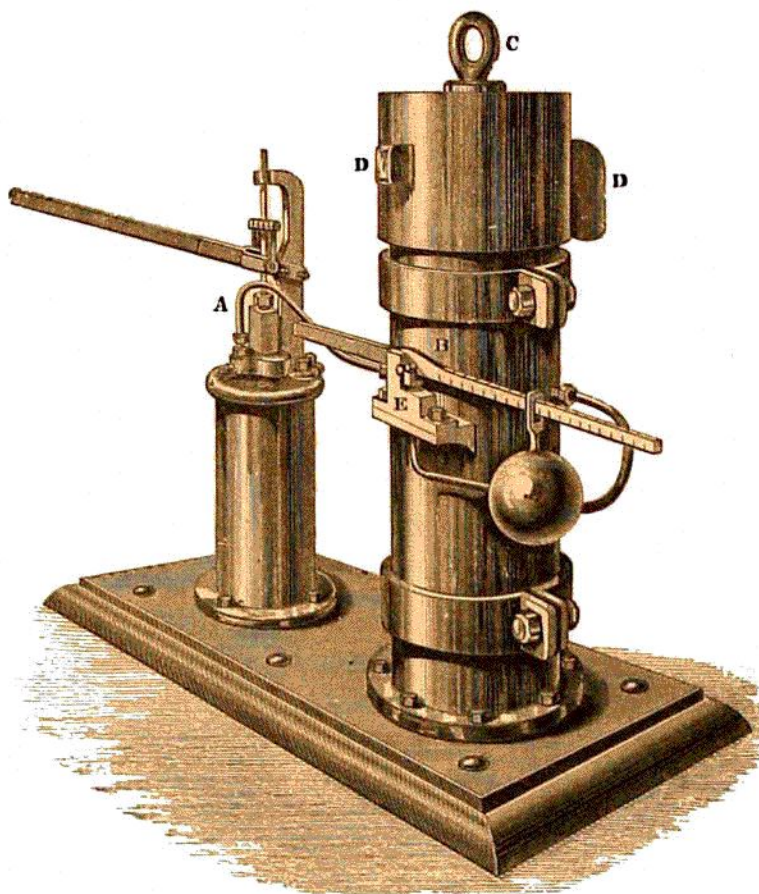


FIG. 4.—Hydraulic Compression Apparatus.

besides causing waste of time, as the tallow had to be melted before being used. After a very few weeks, therefore, it was rejected, and its place supplied by an ordinary glass spirit lamp, when only a small flame was required. For glass-blowing purposes, however, where more heat was necessary a four-ounce wide-mouthed bottle was used, to which was fitted a wick socket made of sheet copper, and of such a size as to accommodate the greatest possible amount of wick. This lamp was fed with spirit, and it would have been impossible to have had a better flame for glass-blowing purposes, especially for working lead glass. There is also the great advantage in using spirit as compared with gas or oil, that it burns with a non-luminous flame at all times, and saves the eyes the fatigue of