

Fig. 1.—LONGITUDINAL SECTION.

cate its economy. The furnace has been fired, day and night, for eleven days, with 14 tons of a dirty, bituminous slack coal, which is mined in the vicinity of Akron, and sold at the works for \$1 per ton. On the second grate Connellsville coke has been used, costing \$6 per ton. For every ton of coal burned 300 pounds of coke have been used, the coke costing 90 cents per ton of coal consumed. The total cost of fuel for eleven days was \$26.60.

The reservoir attached to the works is 210 feet above the pumps and 2,700 feet distant. The consumption of water has been about 1,000,000 gallons per diem. To do the same work the boiler with the usual setting would have required at least 35 tons of coal, at a cost of \$35.

The average saving which would result in most cases from the use of the Flannery furnace would undoubtedly be greater than that shown at Akron, where the coal used is very poor

and the cost exceptionally low. At Akron, local conditions made it necessary to return the gas from the smoke arch to the rear of the boiler where the chimney is located through a flue 40 inches square and 27 feet long. This is considered to be a disadvantage. I am informed by the superintendent of the works that the labor required to run this boiler is one-half of that which is ordinarily required with the usual setting.

The advantages which are claimed for this boiler-setting are : Economy of fuel and prevention of smoke, economy of labor, more even action of the boiler and its longer continuance in service, due to the small amount of deposits in the flues.

The system is particularly applicable in the setting of boilers where continuous service is required, where the cost of the fuel is great, where the space occupied by fuel is valuable, or where the production of smoke is objectionable.—*Manufacturer and Builder.*

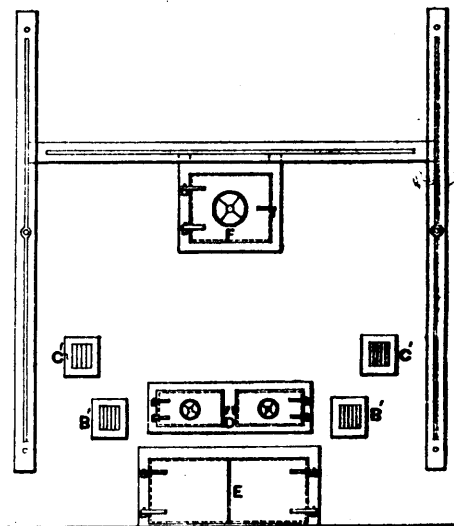


Fig. 2.—Rear Elevation.

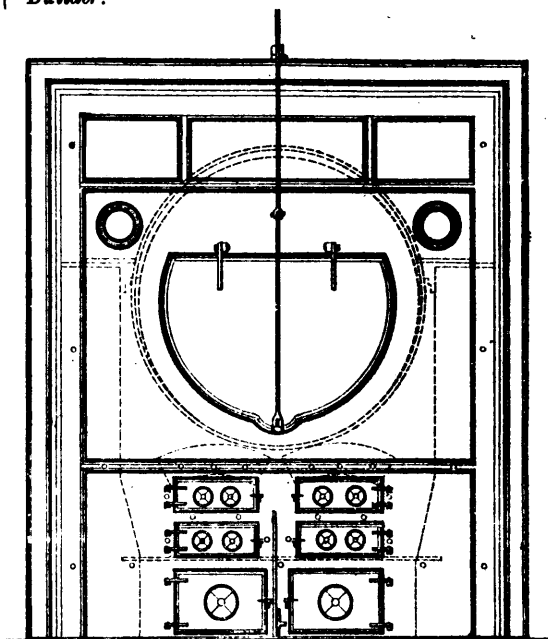


Fig. 3.—Front Elevation.