



CLASS X.

CIVIL ENGINEERING, ARCHITECTURAL, AND BUILDING CONTRIVANCES.

SUB-CLASS A.—*Civil Engineering and Building Contrivances.*

[2226]

ALGER'S PATENT FURNACE COMPANY (Limited), 4 *Victoria Street, Westminster*.—Model of an elliptical blast furnace, now erected at Stockton-on-Tees, and in blast.

The advantage which the elliptical blast furnace possesses over other furnaces, consists in its combining large capacity with that degree of narrowness which insures the horizontality of the lines of equal temperature from the tuyères upwards. Thus the whole of the ore arrives in a uniform state of preparation for fusion at a melting zone, possessing perfect uniformity of temperature. The quality of the iron is improved, the descent of the charge

more uniform, and there being *two* openings for tapping, one at each end of the ellipse, the furnace is more under control, and bridging, or scaffolding, is greatly diminished. There is a saving of one-third in the cost of construction, one-third in the fuel; less labour is required, and there is, besides, a saving in the blowing. Any ordinary blast furnace can be altered to the elliptical form at a small expense.

[2227]

ALLEN, EDWARD ELLIS, 5 *Parliament Street, S.W.*.—Corrugated fibrous sheets for roofing, partitions, &c.

[2228]

ALLEN, H., 17 *Percy Street, W.*.—Double model: a lift for manufactory; ditto for private house.

1. Model of a lift for raising or lowering invalids to the different floors of a house with ease and comfort.

2. The same adapted for raising or lowering goods at a factory or warehouse.

[2229]

ARRBRUTH, G. B., & THOS. SCOTT, 18 *Parliament Street*.—Models of iron armour for ships and forts.

[2230]

ARCHITECTURAL POTTERY COMPANY, THE, *Poole, Dorset*.—Mosaic, tessellated, and white glazed tiles; patent glazed bricks; and orange-tree tile-tubs.

[2231]

ASHBY, ROBERT, 34 *Smith Street, Chelsea, S.W.*.—Model for fireproof building.

[2232]

ATKINSON, W., 1 *Victoria Street, London*.—Portland cement.