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CONTAINING

USEFUL ORIGINAL MATTER

ON SUBJECTS CONNECTED WITH MANUFACTURES, THE
ARTS AND SCIENCES, AS WELL AS SELECTIONS
FROM THE MOST APPROVED

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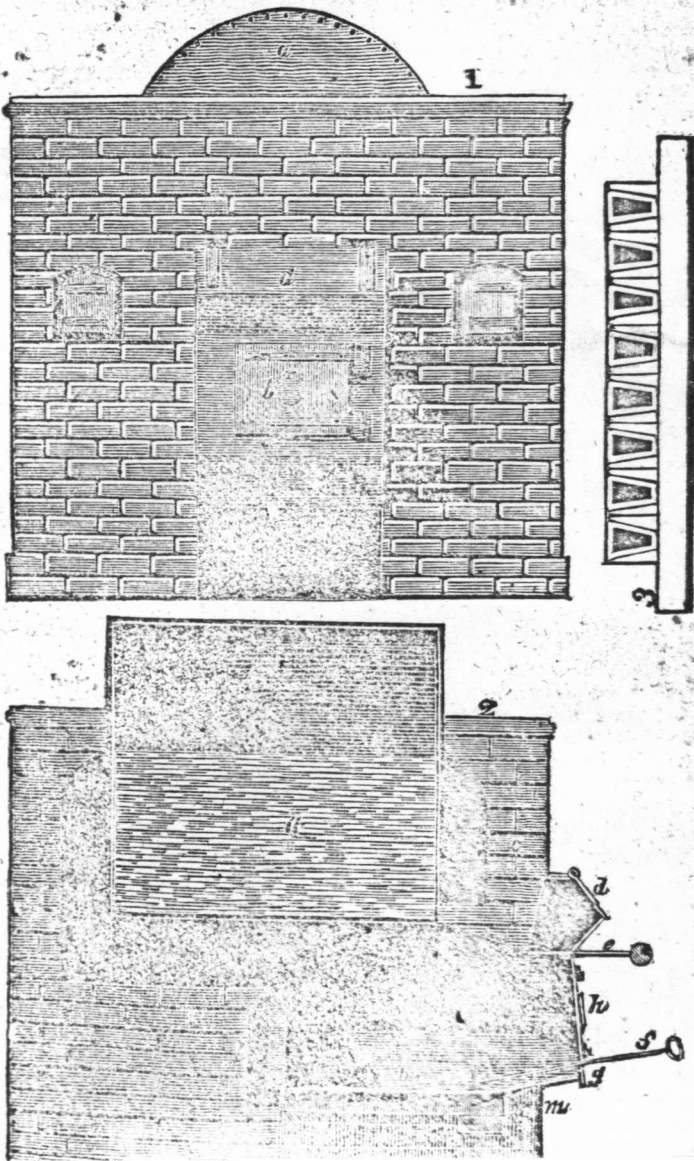
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4. CHAPMAN'S PLAN FOR CONSUMING THE SMOKE OF STEAM BOILERS, &c.



ON THE MANUFACTURE OF GLASS
BEADS.

Drs. Hoppe and Hoinschuch, in the Journal of their tour to the coast of the Adriatic Sea, give the following account of the far-famed manufacture of glass beads, carried on at Murano, a place adjoining Venice :

The furnace and the white glass are similar to what is seen in the common glass-houses; but they mix with this white glass peculiar colouring substances, of which they make a great secret. The coloured glass being reduced to a melted state, a certain quantity is taken up by the blow-pipe used by the workmen, and is blown hollow; a second workman lays hold of the other end of the glass ball, and both the workmen run with great expedition two opposite ways, and thus draw out the glass into pipes, the thickness of which differ in proportion to the distance. A long walk of 150 feet in length, like a rope-walk, is attached for this purpose to the glass-house.

As soon as the pipes are cooled, they are divided into pieces, all of the same length, sorted, packed in chests, and sent to the bead manufactory in Venice itself. Striped pipes are made by taking two lumps of glass from pots of different coloured glass, twisting them together, and then drawing out the whole to the proper length. They also manufacture pipes three feet long, and of the thickness of a finger; these have a ball blown at one end, and are used to tie up plants in flower-pots.

When the pipes arrive at the bead manufactory in Venice, a person picks out pipes of the same thickness, which he cuts into small pieces of the size he thinks necessary. For this purpose, a sharp iron, in the shape of a broad chisel, is fixed in a wooden block: the workman places the pipe of glass on the edge of this tool, and with a chisel-like tool in his right hand, he cuts, or rather chips the pipe into the sizes that are proper for the various sized beads.

These fragments of the pipes are then put into a mixture of sand and wood ashes, and stirred until the hollow of all the pipes are filled, in order to prevent their sides from running together by the heat of the fire. They are then placed in a vessel with a long handle, more sand and wood ashes are added, the whole placed over a charcoal fire, and stirred continually with a spatula, resembling a hatchet with a

round end. By this simple means they acquire the globular figure. The sand and wood ashes are then separated by sifting, and the beads themselves sorted by other sieves, into different sizes. Each size is then strung upon threads, made up into bundles, and packed ready for exportation.

The extent to which this manufactory is carried is astonishing. Many hundred weight stand ready filled in casks, to be sent to all parts of the world, but particularly to Spain and the coast of Africa.

The travellers to whom we owe this account, were shown every part with the greatest civility, entertained with coffee, and presented with several patterns of glass pipes, and pattern cards that contained no less than sixty different kinds of glass beads.

Lond. Mec. Jour.

ON MOUTH GLUE, AND JOINING SHEETS
OF DRAWING PAPER.

Mouth glue is the best substance hitherto known for joining several sheets of paper together, when a single sheet is not of sufficient size to hold the design.

This glue is in fact nothing but the common glue scented, in order to take away the disagreeable smell and taste of the glue. For this purpose, 4oz. of the best English glue is broken to pieces, put into a glazed earthen or stone ware pipkin, and is floated with cold water; after remaining two or three days, the superfluous water is poured off, and the moistened and softened glue melted on a slow fire: when melted, 2oz. of common sugar is added by degrees; and some also add a spoonful of lemon juice—but this appears useless. The melted glue is then poured out on a marble slab, about 15 inches square; or even a wooden slab of the same size, a wall of wax being first made round the slab, and the whole rubbed with a rag well soaked with sweet oil. The mouth glue is left for four or five days to set, or until it can be removed in a cake, which is usually a quarter of an inch thick. After this, a napkin, folded in four, is placed on a board, and being put over the glue, the whole