

The Smithsonian Institute in England.

The controversy in relation to the Smithsonian Institute has attracted some attention in England, where the interest in the distribution of the income of Smithson's bequest is almost as great as in this country, Mr. Smithson having been a native of that country. He had never visited this country, but entertaining high hopes of the ultimate results of the free institutions and great social equality of this country upon the elevation of the human race, he left the whole of his property—about £110,000—to found at Washington an institution for the increase and diffusion of knowledge among men." It must be evident that the countrymen of the donor have a contingent interest in the application of this fund, and it is not surprising that they should protest earnestly against such an application thereof as would confine its benefits to those only who may have the leisure and the means wherewith to visit the capital of our country.

We find in the London *Illustrated Crystal Palace Gazette* an able article upon the manner in which the funds of Smithson have been applied. The writer says:—

"Nothing more novel in the way of agencies for increasing and diffusing knowledge among men could be devised than an institution lodged in a large building, containing a library, a museum and a lecture room, the whole being under the control of a sort of episcopic commission, part legislative, part executive, half local, half national."

"One of two results was sure to follow such an organization—either the governing board would sink into a mere formal body to record and sanction the acts of the executive officer, who would become the real head and soul of the institution, or the executive officer must sink into the mere tool of his official superiors, carrying out with indifferent zeal the most opposing views, as one policy or another happened to prevail in that body. The latter alternative would only happen in the case of an inferior man being chosen as the executive officer, for the intelligence and zeal of a man fit for the station, who should devote his whole mind and energies to the important work committed to his hands, could not long fail to carry with them the will of a deliberate body, assembled occasionally, called from their other and various pursuits to act upon matters aside from the current of their ordinary occupations."

He then pays a high compliment to the genius, integrity, and learning of Prof. Henry, and takes about the same views of how the Institute should be managed, as we have done.

Ornamental Water Pipe.

The Philadelphia *Ledger* describes a very grand and ornamental water pipe, just completed for the Water Works, now in the course of erection at West Philadelphia. It says: "the pipe itself, which forms the central portion or body of the tower, is 130 feet long, and five feet in diameter, is constructed of boiler plate, and firmly secured to a substantial stone foundation. The inside of this pipe communicates with the distributing main, so that the surplus water from the pumps, not in immediate requisition, ascends into the interior, thereby producing an efficient head. Surrounding the lower portion of the pipe, is built an octagonal base of cut stone, so arranged that a sufficient space is left between the inside of the stonework and outside of the pipe to receive the spiral stairs, which are secured to both.

Above the stone work and surrounding the pipe are a series of cluster columns, between which and the pipe are secured the steps, together with a Gothic scroll forming a spiral staircase, which terminates in a platform at a height from the level of the river of upwards of 225 feet. This platform is supported on ornamental brackets attached both to the cluster columns and the pipe, and is surrounded by a suitable iron railing. The cluster columns are carried upwards through the platform towards the top of the pipe, where they are connected together by Gothic arched pieces, and to the pipe by ornamental flying buttresses, the pipe itself being surmount-

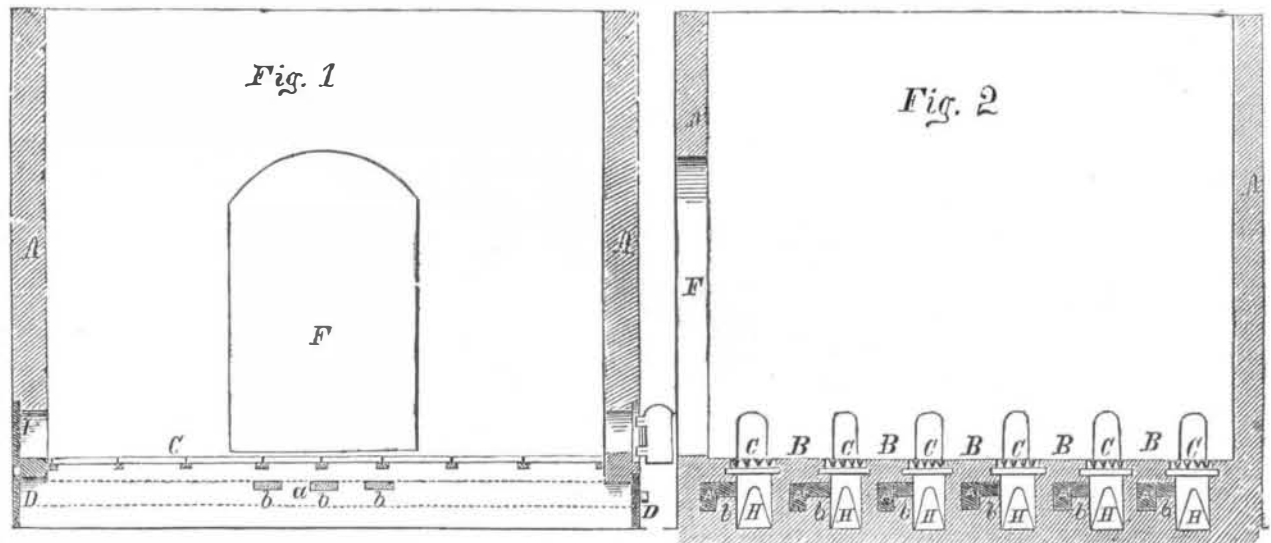
ed with a spiral of plate-iron. The whole of the structure, with the exception of the stone base, is built of iron, and forms a column of light and elegant appearance. Although not a building of very extensive and formidable character, yet, on account of the novelty of its design and the peculiar method of its construction, it is well worth the examination of

the curious in such matters. It serves to show, too, how a little taste combined with mechanical skill, judiciously applied, can render an object which would have otherwise been an eye-sore to the neighborhood, both useful and ornamental.

A most varied and extensive view of the city and surrounding country, may be obtain-

ed at the expense of a little exertion in ascending the spiral stairway to the platform. The suggestion of building an ornamental stand pipe, is due to Mr. Birkenbine, one of the contractors of the water works. The original design and working drawings were by Mr. H. Howson, a young engineer of Philadelphia.

IMPROVED BRICK KILN.



A patent was granted on the 4th of last July, to John S. Speights, of Baltimore, Md., for the improvement in Brick Kilns, represented in these engravings, fig. 1 being a longitudinal vertical section, and fig. 2 a transverse vertical section of the kiln. This is a coal-burning kiln, and the improvement consists in a certain arrangement of the fire grates, and air passages, whereby very perfect combustion of the fuel is obtained, and regulated at all parts of the kiln.

A A are the side walls of the kiln, which are built in the usual way. B B are broad walls resting on solid foundations, and running the whole length, and supporting the fire grates, C C, which also run the whole length. The spaces, H H, between the walls, B B, constitute the ash pits and also air passages to admit air to the fire through the grate, and are furnished with a door, D, at each end. A door, I, is also provided immediately over the fire-grate at each end thereof. In each wall, B, there is an air passage, A', which requires to be of small size compared with the ash pits. These passages, A' A', extend clear through from end to end, and have each a

communication with one of the ash pits near the middle thereof, by means of one, two, or three, or any suitable number of lateral openings, b b. These openings are not required at any part, but near the middle. The passages are furnished with doors or stoppers at each end. The kiln is filled with brick in the usual manner, through a door, F, in one side, and the raw bricks are built in arches over the grates, C C, being all supported on the walls, B B, between and at the sides of the grates, and thus resting on solid foundations. When a very strong draught is required at all parts of the fire grates, or at any one of them, the doors, D D, are opened at each end, and the stoppers removed from the passages, A' A', when a full supply of air is admitted, both at the ends and middle of the grate. When it is desired to concentrate the draught upon any part of any grate or grates, it may be done by closing one or both doors, D D, of such grate or grates, and taking out the stoppers, or by closing the stoppers and opening either of the doors, D D. When it is desired to reduce the draught at any part, either of the doors, D D, leading to any grate or grates,

may be wholly or partly closed, or one or both of the stoppers put in. In this manner the combustion can be controlled in all parts of the kiln. The coal can be fed at either end of the fire grates as the case may require, by opening the proper door, I.

This coal-burning brick kiln is very simple in construction, having no arches, and the walls, B B, requiring to be made of only such bricks as are unfit for market. A co-partnership has been formed between Mr. Speights and Wm. A. Siner, No. 435 North Fifth street, Philadelphia, who has used this kiln during the past eight months, and makes the following statement respecting its working qualities:—

"I have burned 1,200,000 bricks with less than 200 tons of coal at an average time of about 68 hours to each kiln. The coal used was from the Cumberland Coal and Iron Co.'s mines, and the bricks burned by it were of as rich and red color as any others produced in Philadelphia."

Communications respecting this kiln may be addressed to Messrs. Speights & Siner, at Philadelphia or Baltimore.

To Destroy House Ants.

The best way to get rid of ants is to set a quantity of cracked walnuts or shell barks on plates, and put them in the closet and places where the ants congregate. They are very fond of these, and will collect on them in myriads. When they have collected on them, make a general auto-da-fe, by turning nuts and ants together into the fire, and then replenish the plates with fresh nuts. After they have become so thinned off as to cease collecting on plates, powder some gum camphor and put in the holes and crevices, whereupon the remainder of them will speedily vamoise.—[Albany Knickerbocker.

[A very simple method of destroying these pests, is to put some sugar on a particular part of the floor, and then sprinkle some spirits of camphor upon the ants when they congregate—as they soon will—upon the sugar to enjoy a sweet repast. Camphor appears to be fatal to ants.

The Coal Fields of Russia.

"In Russia there is no valuable and unbroken coal fields, and if, in the progress of cultivation, her forests disappear, she has no mineral fuel to supply their place. There is, indeed, a coal field upon the Donetz, but it is far distant from St. Petersburg and Moscow, and it may not be of sufficient value for transportation to the Black Sea. In the carboniferous system which occupies the vast territory between the Volga and the Ural mountains, there occur only at intervals very rare and thin traces of coal."

The above is selected from the last number of the *North British Review*; article, *Mur-*

chison's Siluria. It is a well known fact, that Russian steamers are entirely dependent on England for coal, as it is impossible for a steamship to use wood for fuel, even for a very short voyage. Russia, without coal fields, never can become a great commercial or manufacturing country. It is the coal of the United States which will yet make our Republic the first manufacturing and commercial nation in the world.

Exportation of Anthracite Coal.

We see it stated, that arrangements are in progress for the exportation to England of this important article on a large scale, and there are no great obstacles that we can see to discourage the idea. It is true that our home markets are as yet by no means overstocked with this commodity, but we are still much better off than the principal English markets in this regard, the retail price of their bituminous coal, which is far less durable, and therefore less economical than our anthracite, being at present, we are informed, \$7 27, while last winter it retailed at \$10 18, and will probably be still higher the coming one. In spite of the numerous conflicting opinions on the subject, we believe that there can be no reasonable doubt but our production of coal will henceforth more than keep pace with the home demand, and therefore consider that such a movement as the present cannot hurt us, while it will open up an immense field for trade.—[American Mining Chronicle.

[It is surprising to us, that the *Chronicle* does not know that there is plenty of anthracite coal in England, which can be obtained

at a far lower price than that at which Pennsylvania coal is now selling here. The idea of exporting anthracite coal to England is a droll one, truly. Perhaps the Editor of the *Mining Journal* has met with some *wag* in his travels.

Artesian Well in Charleston.

The people of Charleston, S. C., deserve a great deal of credit for the enterprise and perseverance they have displayed amid so many difficulties and trials in boring for water. We understand that over 1200 feet of tubing have already been let down, and the boring is still being conducted, although with great difficulty, through a very hard sand stone, twenty-four feet of which have already been penetrated.

St. Louis Artesian Well.

An artesian well is now being bored at the sugar refinery of Messrs. Belcher, St. Louis, and has attained the great depth of 2200 feet, without reaching the pure element. Let the Charleston people think of this.

Guano and Plaster for Cotton.

In 1853 I made the following experiment with guano and plaster, on 60 acres of land: 100 pounds of guano, and 50 pounds of gypsum per acre, cost \$3, total \$180. The increased production was 100 pounds of clean cotton to the acre, or 6000 at 9 cents net per pound, or \$540 with a profit of \$360.

M. R.

Orangeburg, S. C., Sep., 1854.

The results are even more satisfactory this year.