

room in Milton Street, Cripplegate, of the most uproarious character. When Mr. Glass attempted to explain the machine, and recommend its use, on the grounds that it was more effective than the use of boys, and that it would prevent an incalculable amount of human suffering, the yelling and shouting were fearful. It needed a considerable amount of moral courage in Mr. Glass and the gentlemen who accompanied him, to enable them to face the riotous audience.* In spite of opposition the philanthropists laboured on; and great was the triumph when at last they found that the public recognised their efforts, and an eloquent leader in the "Times" heralded the way to the introduction of a fresh bill into Parliament. Before a select committee of the House of Lords the battle was waged. It is surprising to read in the present day that the managing director of one of the largest insurance companies objected to the discontinuance of the use of boys because they were in the habit of sending up the poor children, after a chimney had been on fire, to see if the fire was out! How would they know that a fire was out unless they sent somebody up the chimney to see! But the evidence of the effectiveness of the machine, and the cruelty of the practice of employing boys, was overwhelming. The bill was recommended by the committee, passed both Houses, and became what is now called the Act of 1840, for the Regulation of Chimneys and Chimney-Sweepers, any one employing boys being liable to a penalty of five pounds for the first offence, and ten pounds for the second.

During the two years before the Act came into operation, Mr. Glass travelled all over England, holding meetings, explaining the provisions of the Act, showing the practicability of the machine, and taking steps for the discontinuance of the use of boys. The labour was enormous. Nearly every large town in England was visited, and many of the country residences of the nobility were examined, and the chimneys altered to enable them to be swept by machinery. So thoroughly was the work done, that when the Act came into force, in 1842, the adoption of the machine was complete in the metropolis, and general throughout the country. Prejudices were, however, still very strong in many places, and occasional journeys had to be made in the interests of the climbing-boys.

Mr. Glass was actively employed in other works of usefulness. Identifying himself with the temperance movement, he was one of its foremost supporters. His house was open and a welcome always ready for the reclaimed men who were afterwards its most eloquent advocates. Amongst those who thus partook of his hospitality was John Cassell, who came up to London from his carpenter's bench to lay, in the adoption and advocacy of temperance principles, the foundation of his remarkable success. Mr. Glass was for some time chairman of the Parent Committee of the British and Foreign Temperance Society. He wrote "The Experiences of a Journeyman Bricklayer," a temperance paper of so much practical good sense and freedom from verbiage, that it became the most popular and widely distributed tract of the day.

* Mr. Hone, in his "Every-day Book," describes an invention of Mr. George Smart, called a "Scandiscope," for which two gold medals were given by the Society of Arts. It appears to have been one of the earliest machines which excited the opposition of the master chimney-sweepers. The same book contains an account of a meeting in St. John's Wood, on the 1st of May, 1826, where one master sweeper affirmed with great vehemence, and amidst general enthusiasm, that it was "a thing impossible" to do away with climbing-boys. "For instance, look at the Duke of York's fifty-one new chimneys. Let me ask any one of you in company, is it possible a machine could be poked up any one of them?"

He was singularly unsectarian. Originally belonging to the Wesleyan Methodists, without discontinuing his connection with them, he for some years regularly attended his district church, and was as ready to support the Sunday schools and other religious undertakings of the one as the other. Latterly he attended the ministry at Stockwell Chapel, evidencing the same catholicity that had distinguished him in earlier life.

In his later years Mr. Glass gradually retired from all active engagements. His memory going back to the scenes of his boyhood, he employed some of his leisure hours in writing a "History of Manningtree" in rhyme. But his heart was still in his old work. Finding that the boys were clandestinely used for sweeping chimneys in many of the provincial towns, he published a little monthly periodical called "The Climbing-Boys' Advocate," and succeeded in arousing the attention of the humane in Derby, Leicester, and other places.

Mr. Glass never patented his useful invention. He received the silver medal from the Society for the Suppression of Climbing-Boys, and £200 left by a benevolent lady as a prize to the inventor of an effective machine for sweeping chimneys. Modest and unobtrusive, he rarely mentioned his own name in connection with the Climbing-Boy Emancipation. In the "Advocate" he signs himself "The Editor," and with the exception of occasional references to Glass's Machine, the uninformed reader would learn nothing concerning this earnest and self-denying philanthropist.

Full of years, without a care, having accomplished the object of his life's work, Joseph Glass passed away to his rest. The last time he took up his pen he wrote to one of his sons:—"I have lived a lengthened period, and have seen better days than my ancestors. My long life after all seems but short, only I have the consolation of knowing that my last days are my best. Sometimes I think the winter or the summer as it comes round will be my last. But I do not think so despairingly. I have faith in the future, and trust in the only sure foundation." Three weeks after the above was written death came as a welcome messenger. He died on the 29th December, 1867, in his seventy-sixth year.

A PARISIAN MUSHROOM CAVE.

It is pretty generally known that mushrooms are grown in great quantity under Paris and its environs, but it is somewhat difficult to obtain access to these *carrières*, and therefore a few words descriptive of one of them may not be unacceptable. The locality is that of Montrouge, just outside Paris. The surface of ground is cropped with wheat; here and there are heaps of white large cut stones ready to be transported to the buildings of Paris, and which have recently been brought to the surface through the coal-pit like openings. There is nothing like a "quarry," as we understand it, to be seen about, but the stone is extracted as we extract coal, and with no interference whatever with the surface of the ground. We find a "champignoniste" after some trouble, and he accompanies us across some fields to the mouth of his subterranean garden, if we may so call it. It is a circular opening, half of it being covered with planks, and the head of a pole with sticks thrust through it appears a couple of feet above the surface, its base resting in the darkness seventy feet below. We descend by this shabby pole with the sticks thrust through it, and soon reach the bottom of the shaft, from which little passages radiate. A few small lamps fixed at the ends of pointed

sticks are placed below, and with one of these we follow our guide. Our passage is narrow, but roomy enough to stand erect, and immediately on entering it mushroom culture begins. On each side of the pathway there is a small bed of moist half-decomposed stable manure, not covered with earth—they are beds which have been made quite recently, and have not yet been spawned. Presently we arrive at beds in which the spawn has been placed, and is "taking" freely. The spawn in this cave is introduced to the little beds by means of flakes taken from an old bed, or, still better, from a heap of stable manure in which it occurs "naturally." Such spawn our guide preferred, and called it virgin spawn, and considered it many times more valuable than that taken from old beds. Of spawn in bricks, as in England, there is none.

Our champignoniste pointed with pride to the way in which the flakes of spawn had begun to spread their influence through the little beds, and passed on, sometimes stooping very low, and cautioning us against the pointed stones in the roof, to where the beds were in a more advanced state. Here we saw, and with much pleasure, little, smooth, pretty-coloured ridges running against all the sides of the passages, and wherever the rocky subway became as wide as a small bedroom, two or three beds were placed parallel to each other. These beds were young, and dotted over on their sides with mushrooms no bigger than sweet pea seeds, but regularly dotted thus, and affording an excellent prospect of a crop. Be it observed that the little beds contain a much smaller body of stuff than is ever the case in our gardens—twenty inches high, and about the same width at base, being about the maximum, and of course these against the sides of the passages have not so much matter as those shaped like little potato pits, and placed in the more open spaces. The soil with which they are covered to the depth of about an inch is nearly white—it is simply sifted from the rubbish of the stone cutting above, and the use of this gives the recently made bed the appearance of being covered with whitish putty. Although we are from seventy to eighty feet below the surface of the ground everything looks very neat, in fact very much more so than could have been expected, not a particle of litter or matter out of place being met with the whole time. Some length of bed is made every day in the year, and as they naturally finish one gallery or series of galleries at a time, the beds in each have a like character. As we proceed to these in full bearing, creeping up and down narrow passages, winding always between the two little narrow beds that line the passages, and seeing now and then wider nooks at the side filled with two or three little beds, even if the space be but a few feet long, daylight is again seen, this time coming through another well-like shaft, formerly used for getting up the stone, but now for throwing the requisite materials into the cave. At the bottom lies a large heap of white earth before alluded to, and a barrel of water—for gentle waterings are required in the quiet, cool, mighty stillness of these caves, as well as in the mushroom-houses on the upper crust.

Again we plunge into a passage dark as ink, and are between two lines of little beds in full bearing, the beautiful white button-like mushrooms appearing everywhere in profusion along the sides of the diminutive beds, something like the drills which farmers make for green crops. As the proprietor goes along he removes sundry bunches that are in perfection, and leaves them on the spot, so that they may be gathered with the collection for to-morrow's market. He gathers largely every day,

occasionally sending more than 400 lb. weight per day, the average being about 300 lb. A moment more and we are in an open space, a sort of chamber, say 20 feet by 12, and here the little beds are arranged in parallel lines, a passage of not more than four inches separating them, and the sides of the beds literally blistered over with mushrooms. There is one exception; on half of the bed and for about ten feet long the little mushrooms have appeared and are appearing, but they never get so large as the pea stage, and then shrivel away, "bewitched" as it were. At least such was the inference to be drawn from the cultivator's expressions about it. Generally the mushrooms grow in bunches, and so equally-sized that it is often desirable to gather the whole crop at the same time.

The sides of one bed here had been almost stripped by the taking away of such bunches, and it is worthy of note that they are not only taken out, root and all, when being gathered, but the very spot in which they grew is scraped out a little, so as to get rid of every trace of the old bunch, and then the space is covered with a little earth from the bottom of the heap. It is the habit to do this in every case, and when our guide leaves a small hole from which he has pulled even a solitary mushroom, he fills it with some of the white earth from the base, no doubt intending to gather other mushrooms from the same spots ere many weeks pass. The mushrooms look very white and pretty, and are apparently of prime quality. The absence of all littery coverings, dust, etc., and the daily gatherings, secure them in what we may term perfect condition. I visited this cave on the 6th day of July, and doubt very much if at that season a more remarkable crop of mushrooms could be anywhere found than was here presented in this subterranean chamber—a mere speck in the space devoted to mushroom culture even by one individual. When I state that he has 10,000 *metrei* (yards) run of mushroom beds in the ramifications of this cave, and yet it is but one of a large number, our readers will have some opportunity of judging of the extent to which mushroom culture is carried out near Paris, not only for its own vast wants in this way, but also for other countries, for they are successfully preserved and sent in quantity to England and other countries. There were some traces of the teeth of rats on the mushrooms, and it need not be said these enemies are not agreeable in such a place, but they did not seem to have committed any serious ravages, and are probably only casual visitors, who take the first opportunity of obtaining more varied food than is afforded them by these caves. We again find our way to the bottom of the shaft, mount one by one carefully up the rather shaky pole, and again stand in the hot sun in the midst of the ripe wheat. In traversing the fields, two things relating to mushroom culture are observed—heaps of white gritty earth, sifted from the *debris* of the white stone, and large heaps of stable manure accumulated for mushroom growing, and undergoing preparation for it. That preparation is different from what we are accustomed to give it. It is ordinary stable manure, not droppings, or very short stuff, and it is thrown in heaps four or five feet high, and perhaps thirty feet wide. The men were employed turning this over, the mass being stamped down with their feet, and a water-cart and pots lying beside to thoroughly water it where dry. The mushrooms grown by the market gardeners in their gardens in winter are considered to possess the finest flavour, but mushrooms may be and are cultivated in the equable temperature of the caves with success.—*The Gardeners' Chronicle*.