THE HOUSES OF PARLIAMENT.

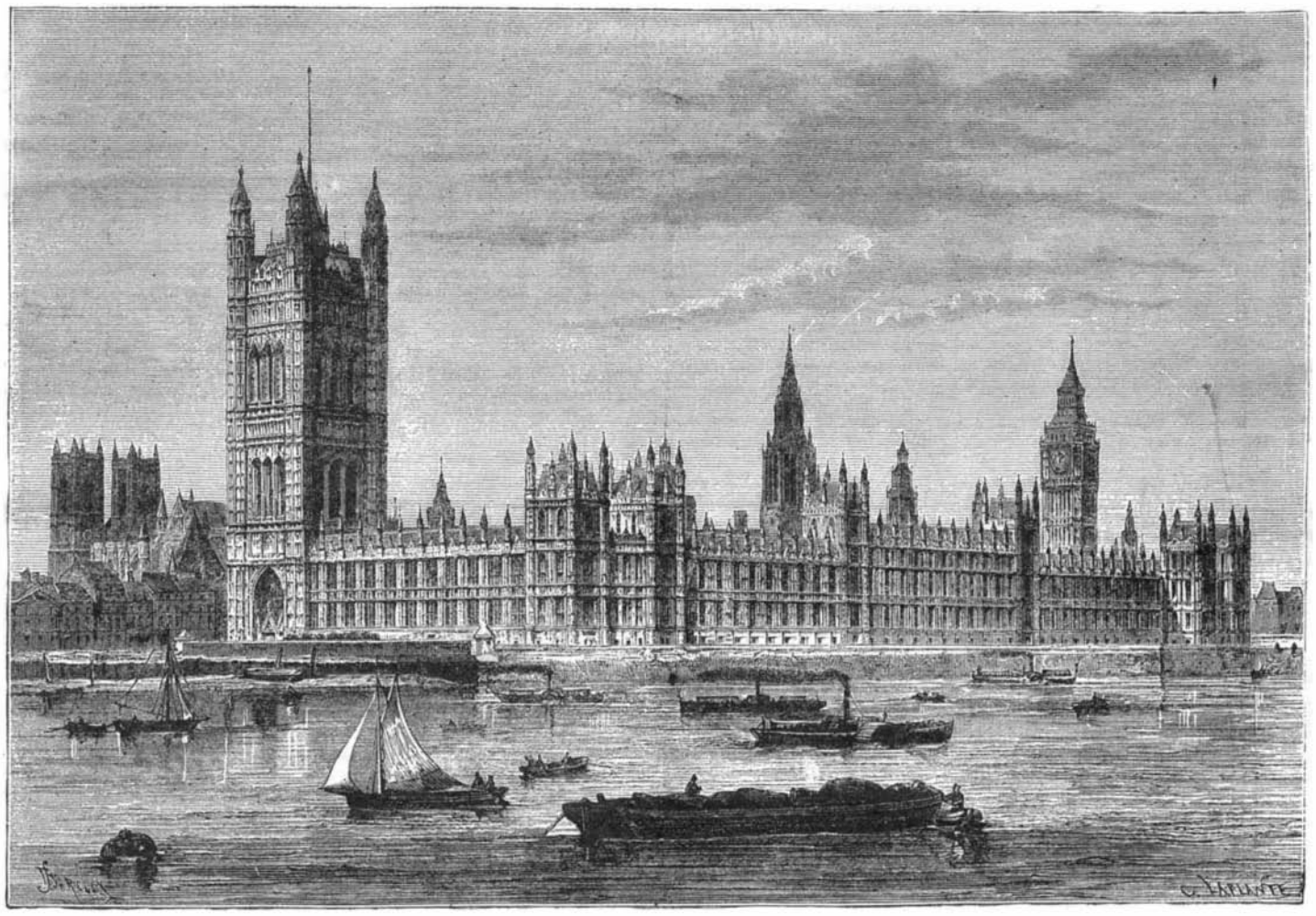
The Houses of Parliament, or the new Palace of Westminster, are among the most famous buildings of London, or indeed of the world. They are located on the left bank of the Thames, between the river and Westminster Abbey, and immediately above the Westminster Bridge. They occupy the site of the old palace, which was destroyed by fire in 1835, and cover altogether an area of about eight acres. The buildings, erected at a cost of $3,000,000, are in the Tudor-Gothic style, and contain 1,100 apartments, 100 staircases, and two miles of corridors. Our illustration shows the very ornate and effective facade, which is toward the river. The clock tower, 320 feet high, is at the northeast corner of the building, and strongly resembles the clock tower at Bruges, so well known through Longfellow's poem. The belfry is 40 feet square, and has dials on its four sides 30 feet in diameter, while those of St. Paul's are but 18 feet. The great Stephen bell, cast in 1858, weighs over eight tons, but is, unfortunately, defective in tone.

The central spire rises above the main dome to a height of 300 feet. At the southwest corner the Victoria Tower, 340 feet high, surmounts the royal entrance.

The House of Peers is located in the western portion of the building, and is 100 feet long and 45 feet in width and height. It is one of the most gorgeous legislative halls in the world, and contains the throne, a chair for the Prince of Wales, and the woolsack for the Lord Chancellor. The stained glass windows are lighted at night from outside.

The Queen's robing room, decorated with frescoes from the legend of King Arthur, faces the river, and is separated from the Victoria Tower by the Victoria Gallery and the Prince's Chamber. Since the gunpowder plot of 1605 a thorough examination of the cellars is made whenever the royal presence is expected. In the center of the building, St. Stephen's Hall is built above the ancient crypt of St. Stephen, the only relic of the old palace, which has now been restored and is used as a chapel. The hall is of noble proportions, containing twelve statues of illustrious statesmen, and separates the House of Peers from the Commons. This is located in the eastern portion of the building, and is much less ornate than the upper house. It occupies the site of old St. Stephen' Hall, and is 60 feet long, with a height and width of 45 feet. The Strangers' and Speaker's galleries (the latter for distinguished visitors) face the Speaker's chair, and are in front of the reporters' gallery.

The foundation stone of this vast pile was laid April 27, 1840. The chief architect was Mr. Barry. In spite, however, of the great expense and the many years consumed in their erection, the constructive features of the British Houses of Parliament are even more unsatisfactory than those of our own Capitol. While we have washed our marble columns with oxalic acid, in the vain hope of making them white, and have even been under the necessity of painting them, the English are forced to note, with considerable uneasiness, the decay of the outside stonework and the rapid deterioration of the interior frescoes of their legislative halls, and must give untiring attention for their preservation.



THE BRITISH HOUSES OF PARLIAMENT, LOOKING NORTHWEST.

AN American medical missionary, Dr. Allen, who settled some time ago in Seoul, the capital of the Corea, has commended his cause to the authorities so much by his skillful treatment of numerous officials who were wounded in the recent insurrection, he himself remaining at his post when all other foreigners had removed out of danger, that the government is now going to establish a hospital for him.

Loss of Weight in Coal by Storage.

In the course of a paper read at the late meeting of the Ohio Gaslight Association, the President (General Hickenlooper) gave the results of some experiments made by him to ascertain the loss in weight suffered by coal by storage. A certain number of pounds of coal were put into a box open at the top, with lattice work sides, and placed on a loft over a stack of benches; an equal weight of coal was placed in an open shed in the yard; while a third portion of coal was filled into a box similar to the one above described, and placed in a convenient situation on the top of the tank wall of one of the gasholders. After a year had elapsed the coal was reweighed. That near the stack had lost 11 per cent; that in the shed had decreased 10 per cent; and the third portion (that on the tank wall), greatly to the surprise of the gentleman who had charge of the experiment, showed a loss of only 1·74 per cent. General Hickenlooper thought the last result might, in great part, be attributed to the fact that, just before the reweighing, there had been a heavy rainstorm, although there was no extraneous appearance of moisture about the coal. A fourth portion of coal, taken from a coal "wall" on the river bank, where it had been exposed to the action of the elements for about three years, showed a loss of 13 per cent. It appeared rather strange that, of the three first-mentioned lots, the one on the tank wall—the most exposed situation—should develop the least percentage of loss; yet such was the fact. Of course, there must have been somewhat contradictory conditions at work, since the specimen from the river bank had lost 13 per cent. The three portions were of identical quality, taken from the same mine.

Observation on Tree Growth.

An interesting observation on tree rings is recorded by Professor Bachelant. During a visit to the ruins of Palenque, Mexico, in 1859, M. Charnay caused all the trees that hid the facade of one of the pyramids of the palace to be cut down. On a second visit in 1880, he cut the trees that had grown since 1859, and he remarked that all of them had a number of circles greatly more numerous than their age would warrant, supposing one circle only to be added annually. The oldest could only have been twenty-two years of age, but on a section of one of them he counted 250 circles. The tree was about two feet in diameter. A shrub not more than eighteen months old had eighteen concentric circles. M. Charnay found the case repeated in every species and in trees of all sizes. He concluded that in hot and moist climates, where Nature is never at rest, trees may produce, not one circle in a year, but one in a month. The age of a monument has often been calculated from that of trees that have grown on their ruins. For Palenque 1700 years had been calculated, 1,700 rings having been counted on a tree. These observations, however, require the number to be cut down to 150 or 200 years. Prof. Bachelant asks if M. Charnay took account of certain colored rings which some tropical trees present in cross section, and which are to be distinguished from the annual circles.—*The Garden.*

Electrical Lamps for Fire Arms.

At the meeting of the Paris Academy of Sciences, July 6, G. Trouve described two new applications of electricity, which relate to the firing of arms at night. The first consists of a luminous electric button; and the second, of a powerful electric projector. These two devices are removable, and they can be applied instantaneously to any ordinary arms; to guns used for hunting as well as to weapons of war; to mitrailleuses, as well as to cannon, in fact, to any fire arms. Their function is automatic.

The electric button is the size of an ordinary metallic button, and consists of a fine platinum thread introduced into a little glass tube, which is, in turn, protected by a metallic tube. An opening is left in the metallic tube, by which to take aim, but said opening is so arranged that the luminous button is visible to the person using the gun only, and cannot be seen by the enemy. The button is operated by Mr. Trouve's reversible, hermetic pile, presented to the Academy of Sciences, by Mr. Becquerel. This pile, which is about as large as the little finger, can be secured to the barrel of the gun, parallel with the same, by means of two rubber bands. The hermetic pile operates only when placed on its side, that is, horizontally; therefore, it will be seen that when the person using the gun places his weapon in position for firing, the pile immediately begins to operate and illuminates the button; and that when the gun is held upright the pile ceases to operate, and the button is no longer luminous. The light given by the button is sufficient for taking aim, but cannot be seen by a person standing three feet from the gun. This is, of course, a great advantage, it being very difficult to take aim correctly in the dark.

The luminous electric projector consists of an incandescent lamp and a little parabolic reflector, or of an incandescent lamp and a concentrating lens enclosed in a metallic tube. The apparatus is to be applied to the end of the barrel of the gun, parallel to the same, by means of two elastic bands. It is put into operation by pressing the butt of the gun against the shoulder, and, by its use, the point to be struck can be lighted, and, if it moves, all its movements can be followed. The generator of electricity to be used for this apparatus is the same as that used for the safety lamp invented by Mr. Trouve, and recently presented to the Academy of Sciences by Mr. Jamin. It can be worn in the belt, and its action is automatic.

The services which these two apparatus are capable of rendering to armies and navies are numerous, but the great advantage which they offer is that they make it possible to aim as correctly at night as in the daytime.

Artificial Oil of Lemon.

By treating the rectified spirit of turpentine in the following manner curious chemical changes take place: Spirit of turpentine, 2 quarts; rectified alcohol, 3 pints; nitric acid, 1 pint. Agitate the mixture in a glass or earthen vessel and allow it rest. After one month the reaction will be complete, and a large quantity of hydrate of spirit of turpentine is obtained. This hydrate, mixed with alcohol, produces voluminous crystals. Submitted to the action of hydrochloric acid gas, the hydrate of turpentine loses a part of its water of crystallization, and is transformed into a hydrochlorate, having all the properties of the *camphor of lemon*. When heated it loses part of its acid; then treated by potassium, it is transformed into a fluid colorless oil, possessing the odor and chemical properties of the natural oil of lemon.