and life in distant countries. Among these attractions is the boy Selim, so famous in Mr. Stanley's tour of search after the late Dr. Livingstone.

There are many attractive features in the grounds which surround the buildings. North of Machinery Hall is a pretty little lake covering about five acres of ground, with sloping banks covered with grass and shrubbery. The spacious grounds in front of Horticultural Hall are dotted with parterres of flowers and traversed by a sunken garden leading up to the portals of the Hall. The grassy expanse of flowers and turf is bordered by a fringe of fine trees; and the cool valleys of Lansdowne and Belmont, on either hand, furnish denser masses of shade to relieve the brightness of the scene. The esplanade, adjoining the main entrance to the grounds, has also been prettily ornamented with flowering shrubs; and in the center is Bartholdi's large bronze fountain, representing Light and Water, "the twin goddesses of cities." West of the Machinery Hall stands the great fountain of the Catholic Total Abstinence Society, which, next to the Centennial fountain, is much the most costly work of the kind in America. The center figure represents Moses smiting the rock, and the four subordinate ones are statues of Father Mathew, Charles Carroll, Archbishop Carroll, and Commodore Barry.

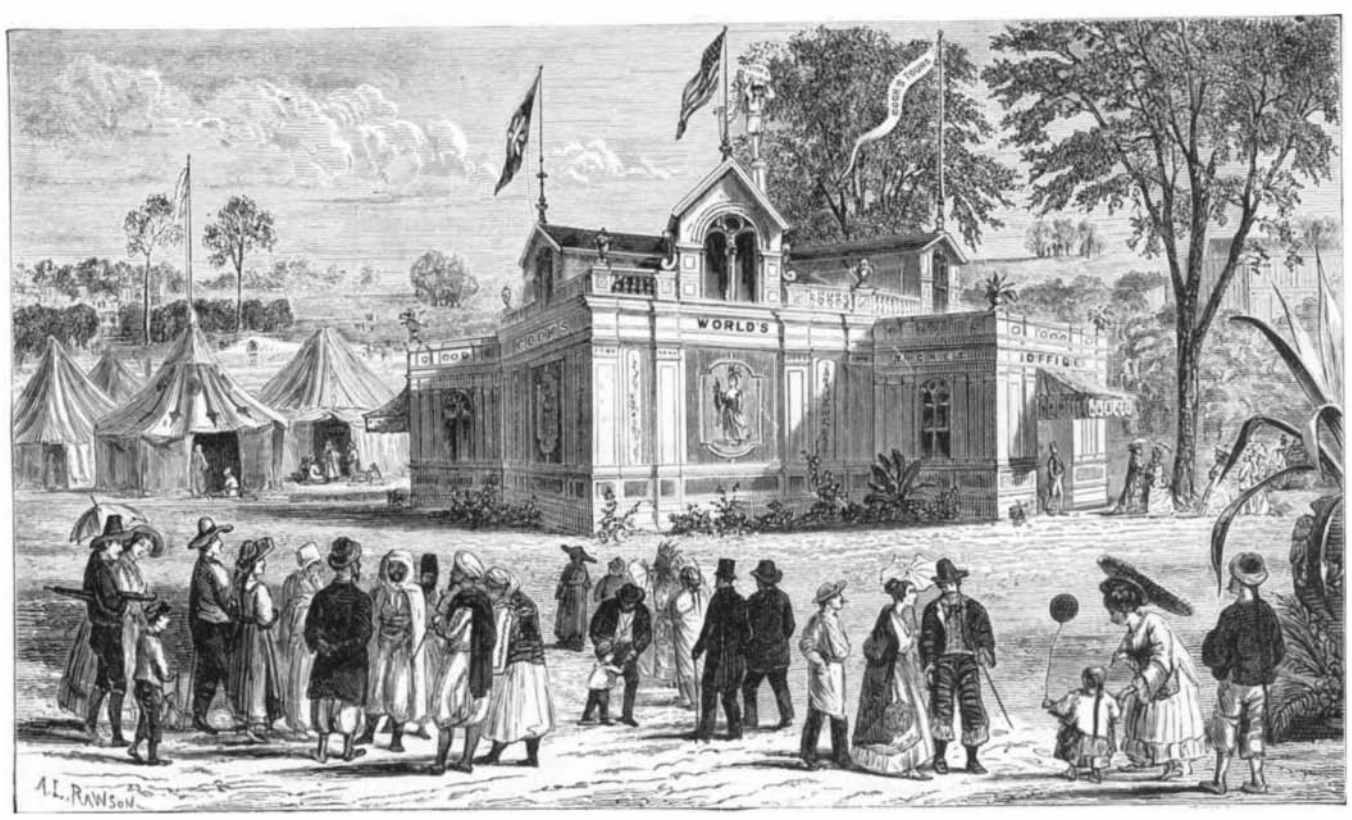
THE CENTENNIAL PHOTOGRAPHIC COMPANY'S HALL.

Dr. W. W. Hall.

We learn with painful regret of the sudden death of Dr. William W. Hall, the well known editor of *Hall's Journal of Health*. Dr. Hall was born in Paris, Ky., in 1810. After completing his education he entered the ministry, and while performing missionary labors found a knowledge of medicine so indispensable that he began systematically to study the healing art. Subsequently he devoted himself to that profession, practising successfully first in Cincinnati and New Orleans, and latterly in this city.

Dr. Hall possessed an extraordinary faculty for popularizing medical knowledge. He was the first to start a popular journal devoted to the inculcation of the laws of health and correct living, in which the articles were written in so clear and plain a style as to be comprehensible by any one. The fact that the *Journal of Health*, which was issued first in 1853, soon attracted a circulation of 25,000 copies, shows the favor with which the public regarded his labors. Dr. Hall prided himself on writing his whole paper unaided; and as he was master of a concise, epigrammatic way of expressing ideas, it was rarely that a copy of the journal could be perused without some useful suggestion being fixed in the mind. Besides his editorial labors, Dr. Hall found time to prepare a number of valuable works on sanitary topics, which have added to his general reputation

It is a remarkable fact that one so well posted in sanitary laws should have died through the violation of precepts which he persistently urged upon others. It seems that for some years past Dr. Hall has greatly overtasked himself in his literary labors, rising at 5 in the morning, and working almost continuously until 10 at night. The physical results of mental overwork are fully known, and perhaps few understood them better than Dr. Hall himself. Yet he fell dead in the street, and subsequent examination has revealed the cause of his death to be degeneration of the heart, one of the commonest results and, according to recent investigations, an almost necessary consequence of an overtaxed brain.



THE WORLD'S TICKET AND INQUIRY OFFICE.

NEW YORK ACADEMY OF SCIENCES.

The chemical section of this society met at 64 Madison avenue, Monday evening, May 8, 1875. After the conclusion of some ordinary routine business, Professor Falke created quite a sensation by exhibiting a quantity of

MERCURY FOUND IN CANNED MEAT

He stated that, on opening a can of cooked corned beef, put up by a company in Chicago, he noticed some bright metallic globules, which proved to be metallic mercury. Beside these, a considerable quantity of combined mercury was present in the form of albuminate of mercury. How the poison came in the meat is a mystery; but a member suggested that, inasmuch as thermometers are employed to regulate the temperature when canning, the mercury may have come from a broken thermometer. It may be interesting to note that a case of poisoning has been reported in Boston from eating canned cooked corned beef. Another member of the Academy informs us that he too suffered severely after eating 2 ozs. of this beef, but is uncertain whether mercury was the real cause of the affliction.

SEPARATION OF BISMUTH, CADMIUM, AND COPPER IN QUALITATIVE ANALYSIS

formed the title of a paper by M. W. Iles, Ph. B. The substance of this discovery has already been published in the SCIENTIFIC AMERICAN SUPPLEMENT. The three metals are precipitated by ferricyanide of potassium; the copper and cadmium are redissolved in excess of cyanide of potassium. K Cy, and tested for in separate portions of the filtrate, the former by hydrochloric acid, H Cl, the latter by ammonia sulphide.

JAPANESE PAPER

Professor Henry S. Munroe, E. M., exhibited a number of specimens of Japanese paper, and described minutely the materials employed, method of manufacture, and uses of this curious material. The Japanese paper, said Professor Munroe, is all made from the inner bark of the mulberry, and is never bleached, although made as clean as possible: hence its faint yellow green or pinkish color. Paper is made in small villages where all the inhabitants are papermakers, just as other small villages consist entirely of blacksmiths, and so of other trades. The sons of papermakers follow the profession of their fathers unless adopted into a family pursuing some other vocation.

The paper mulberry, of which the paper is made, is propagated by cuttings from the roots, which are planted on the borders of rice fields, and mature in five years. In November the reeds are cut and sold to the papermakers; and the roots are left to send up new shoots. The shoots are cut in pieces two feet long, piled up and allowed to ferment, which loosens the bark so that it can be stripped off, after which they are dried in the open air, or scraped at once. The scraping removes the brown epidermis, which can be used for inferior wrapping paper. About 33 lbs. of the bark is boiled at one time for two hours in a strong lye made from wood ashes. It is then put in bags and left in a running stream until the alkali is washed out completely. It is next beaten, 2 or 3 lbs. at a time, on a wooden block with heavy sticks, for 15 or 20 minutes. This pulp is now mixed with a little rice paste, or a paste from a species of mallow. A thin pulp is obtained by stirring ¼ pound of this mass into 40 or 50 gallons of water. The web or mat on which the paper pulp is collected is made of slender strips of bamboo, only the thirty-sixth part of an inch in diameter; several hundred of these are bound together with silk threads; the rods all run lengthwise of the sheet and hence the mats can be rolled or folded up in one direction. A branch of the nobility monopolizes the manufacture of these mats. For coarse paper, reed mats are employed. The process of manufacture is essential the same as in making handmade paper elsewhere. A woman sits in front of the tank and stirs it vigorously, then dips a mat and frame into the vat, takes up some of the pulp and shakes it so as to arrange the fibers parallel. A single dip makes a very thin tissue paper; most paper is made by dipping twice, and draining each time. After the second dipping, the mat is stood up edgewise by the side of the tank to drain, and the frame put on a second mat which also receives its first dipping. While the second sheet is draining for the first time, the mat with the first sheet is laid face down on a pile of finished sheets with a rice straw between them. While the second sheet is draining a second time, the mat is taken off from the first sheet, so that only two mats are necessary. When 500 or 600 sheets, which form a day's work, are completed, they are pressed for some time with heavy weights, then taken up one at a time, by means of the rice straw, and placed by old men on smooth boards to dry in the sun. When dry, the sheets are stripped from the board by a sharp knife with the blade at right angles to the handle like a sickel. The finished paper weighs about one half as much as the bark employed.

Professor Munroe exhibited various kinds of fancy paper from Japan, and another member exhibited a Chinese book, said to be a translation of Professor Tyndall's work on sound, illustrated.

At the close of the regular meeting, Professor A. R. Leeds was elected chairman of the chemical section; and a committee was appointed to consider the subject of having a course of public lectures on Science, next season.

MINERALS.

Professor A. E Foote, of Philadelphia, exhibited through Mr. Hallock some fine specimens of rare minerals, including petzite, molybdenite, embolite, amazon stone, and titanium.

The meeting was adjourned to June 12, 1876.

A New Test.

To detect nitrobenzol in oil of bitter almonds; Take a solution of chloride of tin, and add excess of caustic soda until the precipitate dissolves, then add a few drops of the substance to be tested, and heat. If nitrobenzol is present, it will be reduced to aniline. Next, add a few drops of carbolic acid and some hypochlorite of soda (Javelle water), when the peculiar purple color is produced.