

LITERARY INTELLIGENCE.

—The Imperial Library of Paris, the largest in Europe, possesses 1,100,000 printed volumes and 80,000 MSS. The library of the Arsenal has 200,000 volumes and 5,800 MSS. The Mazarine library, 150,000 volumes and 4,000 MSS., that of the Genevieve, 155,000 volumes and 2,000 MSS., that of the Sorbonne, 80,000 volumes and 900 MSS., and that of the Hôtel de Ville, 65,000 volumes. The total number of volumes contained in all the public libraries of France is 6,333,000, whereas those of Great Britain only contain 1,792,000 volumes. But the number of books possessed by private individuals must be incomparably greater in Great Britain than in France, the possession of books, and the habit of reading them, being the rule across the channel, whereas, here they are the exception. The public libraries of Spain, strange to say, are exceedingly rich and extensive; but little used. Those of Italy contain 4,150,000 volumes, consisting mostly of very valuable old works treating of ecclesiastical matters, with a very slight admixture of modern literature. Those of Austria contain 2,488,000 volumes: of Prussia, 2,010,000; of Russia 852,000; of Bavaria, 1,268,500; of Belgium, 510,000. The Public Library, at Brunswick has just been enriched with one of the most curious collections ever got together, viz: 40,000 play bills of all countries including a considerable number of the last century, and a series of programmes of itinerant theatres, which are even more curious than the others. The donor, Major Hanepler has been 20 years in collecting this singular gathering. The total contents of the libraries of Europe amount in round numbers, to about twenty millions of volumes. One of the most interesting collections of Paris is the extensive and highly curious gathering of all manner of old things known as the Cluny Museum, and which was originally formed and bequeathed to the State by the late renowned antiquarian, M. du Sommerard, is constantly being increased by purchases and gifts. One of the latest acquisitions made by this very curious establishment—so fittingly located in the Abbey of Cluny, itself the lineal descendant of a Roman Thermes, portions of whose mountainous masonry are incorporated into the present buildings—is that of three copper plates, worn very thin and covered with indentations, which have been taken from the tombs of the French Kings at St. Denis. On the first are the words, "Here lies the body of Louise-Elizabeth of France, daughter of Louis XV." On the second, "Beneath is the body of Marie-Adelaide of Lavoie, wife of Louis Dauphin, mother of Louis XV." On the third, "Here lies the body of Louis XIV, by the Grace of God King of France and of Navarre, who died at his Palace of Versailles, on the 1st September, 1715." But who could guess where these plates have been found? In the shop of a petty dealer, in old iron; and they still bear the marks of the nails which held them together as a saucupan!—*Paris Correspondent of the Montreal Herald.*

SCIENTIFIC INTELLIGENCE.

The Weights and Measures Metric system Bill. At a meeting of the Council of the British Branch of the International Decimal Association, Earl Fortescue, President, in the chair, the result of the recent discussion on the Weights and Measures (Metric system) Bills brought in by Mr. Ewart, Mr. Bazley, Mr. Baines, Mr. J. B. Smith, and Mr. Graves, was reported as in accordance with former decisions of the House. The second reading of the compulsory Bill was carried in 1863, by a majority of 35, the second reading of the permissive Bill in 1864, by a majority of 38, and the second reading of the compulsory Bill in 1864, by a majority of 152. Whereupon on the motion of Sir J. Bowring, seconded by Mr. Yates, it was resolved as follows:—

"The Council have seen with great satisfaction the affirmation of the principle of the introduction of the metric system in this country, by the passing of Mr. Ewart's Bill by so large a majority of the House of Commons."

—*Albert Medal*—The Council have this year awarded the Albert Gold Medal to Joseph Whitworth, "for the invention and manufacture of instruments of measurement and uniform standards, by which the production of machinery has been brought to a degree of perfection hitherto unapproached, to the great advancement of Arts, Manufactures, and Commerce."

—*Setting Type by Electricity*.—Among the many wonderful evidences of the ingenuity of mankind is the machine for setting and distributing type. This is now so perfected that I have now before me a book containing 24,993 ems of solid matter, or 34,255 ems of leaded matter, the type of which was both "set" and "distributed" in six hours and thirty-nine minutes by the machine. This is truly wonderful, but I want to say the wonder does not stop here. By means of one of these machines, located in the large newspaper offices in the principal cities, and connected by telegraph with the Capitol, the reporter or operator can set type himself, the machine standing in New-York or New Orleans, and he being in the Capitol. Or instead of setting type, he may produce a matrix—by operating a series of arms and levers having type attached, and made to strike upon a suitably prepared and moveable plastic surface—from which a stereotype may be cast ready for the press a few minutes from the time the speech is delivered, or the action had, whatever it may be. Speeches would still have to be reported by shorthand, simply because no one could

either write them out or set them up as fast delivered. The compositor having the shorthand notes before him, could then set the type from them upon the machine at a distance, or, if required, the shorthand notes could be translated as is now done, for the telegraph operator, and then set up and telegraphed. In the latter case the same labor of the operator that now sends the message would put it into type ready for the press, thus dispensing with the time and labor now required to write out the message and set up the type.

This seems to be a great step in the electrical progress of the age; and there is nothing to prevent its being done at once. It is simply a question of time and money—that's all.—*American Artisan.*

NOTES AND MEMORANDA

—*A Great Meteor at Warsaw*.—In "Comptes Rendus," Mr. Daubrée describes specimens of meteorites sent to the French Academy by the High School of Warsaw. It appears that on January 30, 1868 at 7 p. m. in the environs of Pultask not far from Warsaw, a globe of fire, seen from that city, passed through the sky with a velocity of 29.6 geographical miles in four seconds and a half, shining brighter than the moon, and passing from bluish green to dark red. Two great explosions occurred, followed by a prolonged rattle, and the hissing sound of fragments passing through the air. The fragments of the bolide were distributed over a surface of sixteen kilometres in an elliptical area, one of the largest pieces, weighing four kilogrammes fell in the village of Rzewaie. About three thousand fragments were picked up in different places, the biggest weighing seven kilogrammes, three or four others four kilogrammes, and the majority of much less size. Although the bolide itself moved rapidly, the fragments of the explosion marked the ground with a low velocity, and did not penetrate its icy surface. Their composition was nickel iron, sulphate of iron, chromium of iron, a silicate like powder, and another silicate acted upon by hydrochloric acid.—*The Student.*

—*Alcohol from Lichens*.—The "Archives des Sciences" for August contains a translation of a Swedish paper by Mr. Sten Stenberg showing the large quantity of amylaceous matter contained in certain lichens, among them the reindeer moss (*Cladophora rangiferina*) existing in immense quantities in certain countries of the north.

He converts the amylaceous matter into grape sugar by heat and acids, ferments it, and obtains alcohol, which he states to have an aromatic odour like that of almonds.—*Ibid.*

—*New Medicines from Cochín-China*.—Messrs. Coudamine and Blanchard have sent to the French Academy specimens of the bark of a tree called haofach, which the Annamites regard as a sovereign remedy against diarrhoea, dysentery, and colic. Another bark called *couden* had similar properties ascribed to it. Haofach is considered best for certain intermittent fevers, and *couden* preferred for diarrhoea and colic.—*Ibid.*

PROGRESS OF INVENTION.

—*Tanning*.—Mr. H. Miller Ragland has invented a process for preparing hides to receive more readily the action of tannic acid. After the hair and particles of flesh have been removed and the hides have been properly cleaned by the action of lime, the first step in this new process is to place the hides in water sufficient to cover them. The hides are to be placed in separately with the fleshy side upwards, and are to be sprinkled with bran in the following proportions:—

Light hides, for uppers, &c, each skin....	6 ounces.
Calf skins.....	3 "
Sheep skins.....	4 1/2 "
Heavy hides, for sole leather.....	14 "

In this vat the skins must remain until fermentation has taken place, which will be, in warm weather, in about two days, but in cold weather somewhat longer. After this, the skins must be removed and scraped from any adhering particles of lime or other substances.

When this has been done, the skins are subjected to the action of mustard seed, which forms the distinguishing characteristic in the process. It is carried out in the following manner:—A vat of proportionate size is filled with a sufficiency of water to cover the skins, and to this water there must be added for every hundred pounds weight of the skins, when dry, five pounds of ground Italian mustard seed, and five pounds of barley meal. When these ingredients have been thoroughly mixed with the water, the skins must be dipped therein, so that they may be perfectly saturated with it, and they must be left in this dip for the following length of time:

Calf, sheep, or goat skins.....	24 hours
Light hides and kips.....	36 "
Heavy hides for sole leather.....	48 "

When this time has expired the skins must be taken out and hung up to dry, but only partially, as when subjected to the next process they should still be in a damp condition.

The dip which has been described has a very powerful action on the skins; the combined action of the mustard seed, barley meal, and heat hereby generated, is to open the pores of the skins, and thus to render the remaining processes in tanning them by means of bark much more speedy than under any other methods hitherto known.—*Ibid.*