

then allowed to cool, and when the saline mass is ready to solidify, it is again stirred with the iron rod, which collects the separate lumps of magnesium into one mass. The metal is then distilled in a current of hydrogen, and then fused in a flux composed of chloride of magnesium, chloride of sodium, and fluoride of calcium. The latter is added to increase the fusibility of the bath.

"Messrs. Deville and Caron still worked at the subject, and more recently gave an improved process for the preparation of the metal, in which they recommend the omission of the alkaline chloride, and only use chloride of magnesium mixed with fluoride of calcium for the reduction by sodium, although they state that good results were also obtained by using a mixture of chlorides of magnesium and sodium. They give improved methods of separating the metal from the flux, and for melting and casting it into an ingot. Respecting the properties of magnesium, they describe it as a silver white metal melting at about the same temperature as zinc, and like it boiling and distilling at a higher temperature. Like zinc it also takes fire and burns at a temperature a little above its melting point. The density of magnesium is 1.75. In the crude state it is brittle, but by distillation it is rendered pure and ductile."

NEW BOOKS AND PUBLICATIONS.

THE ATLANTIC MONTHLY. Published by Ticknor & Fields, Boston, Mass.

The August number of this valuable magazine is before us, and contains a varied table of contents, which, as usual, fully sustains the high position it has achieved in the world of letters. The leading article, "An American in the House of Lords," is written in a pleasant chatty vein, which does not appal the reader at the outset so much as its title would lead him to expect. "The writings of Theodore Winthrop" receive commendation at the hands of some generous critic; and "Wet Weather Work," by Donald E. Mitchell, with several poems, comprise the volume.

SIGHTS A-FOOT. By Wilkie Collins. Published by F. A. Brady, 24 Ann street, New York.

Those who have read the thrilling tales by this English author re-published in this country, will at once seize this book and peruse it with the expectation of finding the vivid and powerful descriptive talent which he possesses fully carried out. They will not be disappointed: and at this season of the year the pictures of country life and rural scenes generally, afford the means of whiling away many a pleasant hour beneath some shady tree.

TIGER SLAYER. By Gustave Aimard. Published by F. A. Brady, 24 Ann street, New York.

Those who find romantic sketches of field life and sports interesting, will be repaid by a perusal of this work.

PORTRAIT MONTHLY OF THE "NEW YORK ILLUSTRATED NEWS." Published by T. B. Leggett & Co., 90 Beekman street, New York.

In such stirring times as we now live, when reputations are made in a few hours, and those who were celebrated win additional laurels, every person is anxious to have some idea of the forms and features of their heroes. The "Portrait Monthly of the New York Illustrated News" contains a great many portraits of generals and others, who have been prominently before the public of late; and from our acquaintance with some of the originals, we readily recognize their well-known features. The monthly is neatly bound in paper, and has a portrait of Washington on the cover, which sufficiently attests the character of the publication.

Remarkably Fast Time.

We learn that the steamship *Columbia*, on her last trip from New Orleans to New York, made the run in the very short time of five days and twenty-one hours. We have not the proper data at hand, but believe this is the best time yet made between the two cities. The *Columbia* has long been known as a fast ship; and unless some of our steamships look to their laurels, she will take her place as the swiftest

To this may be appended the recent performance of the British steamer *City of New York*, which is said to have made her last voyage across the Atlan-

tic in eight days and 23 hours. The latest and best time, however, has been achieved by the Cunard mail steamer *Scotia*; which arrived at this port on the evening of the 27th ult., in the short space of eight days, from Queenstown, Ireland. The *Scotia* sailed from Liverpool on the 18th, and Queenstown on the evening of the 19th; and she would have been in one day sooner, as we learn from one of the passengers; but was detained by a dense fog when off Cape St. George—on the west coast of Newfoundland.

Launch of the "Onondaga."

The iron-clad battery *Onondaga* was launched from the Continental Works, at Greenpoint, L. I., at half past eight o'clock on the morning of the 29th inst. The *Onondaga* is known in naval circles as the "Quintard battery," so called from the gentleman who contracted for her, Mr. George W. Quintard, proprietor of the Morgan Iron Works. She is 230 feet long, 52 feet wide, and will have two turrets on the *Monitor* pattern, with the exception that a part of the turret is composed of heavy plates, instead of consecutive layers of thin ones, as in all the other *Monitors*. The *Onondaga* is also peculiar in her side armor, which consists of heavy single plates $4\frac{1}{2}$ inches thick, faced with timber 13 inches thick, which is in turn covered with an iron plate 1 inch thick. The deck is laid with plating amounting to two inches in thickness; and the rest of the vessel is very similar in general arrangement to others of the same class. The propelling power is two pair of horizontal back-acting engines, each driving a screw under the quarter. The *Onondaga* has no overhang forward and but little aft, and it is thought will prove a good sea boat. The vessel was launched very successfully, going down the ways with great rapidity, and running far out into the river. The turrets are not yet placed on board, but are ready for erection. The rest of the machinery is all on board.

French and English Photographers.

The editor of the *Photographic News* (London), alluding to the impressions produced upon his mind on a recent visit to an Exhibition of Photography in Paris, says:—

"In comparing the photography of Paris with that of London, we are not struck with any superiority in the former over the latter, except in one particular. The best French photographers do not excel in any respect the best English photographers; we are not sure that we saw anything in Paris, which of their kind equalled the whole plate vignettes of Mr. T. R. Williams; but in universality of excellence, Paris takes precedence of London. There are more good photographers—a greater number whose works are uniformly excellent, than there are in our own metropolis. We are now speaking of portraiture: in landscape and some other departments, we have no hesitation in claiming the palm for English photographers. Indeed, we have good reason, nationally, to be satisfied with our position in the present exhibition. There are not more than half-a-dozen English exhibitors, but the very highest position in several departments is unquestionably occupied by Englishmen. The best landscapes exhibited are by Mr. Maxwell Lyte: the best instantaneous pictures, by Colonel Stuart Wortley; the best reproductions by Mr. Bingham; the best composition picture—perhaps the best picture of any kind in the exposition, by Mr. Robinson. Nothing can exceed the beauty of some of the instantaneous transparencies of Messrs. Ferrier and Soulier; but they are produced by English lenses, and some of the instantaneous street scenes on paper by other photographers, are not comparable with those of Wilson, England, or Blanchard.

"But in every department of portraiture there are fewer bad pictures in the Exhibition than are found amongst the productions of some of our own professional photographers. Some of the first portraitists, as we have observed, do not exhibit."

MORTALITY IN ENGLAND.—In the ten years, 1851-60, the annual mortality in the districts comprising the chief towns was 34.57 per 1,000 living; in the districts comprising small towns and country parishes, 19.77; in all England, 22.24. The deaths of males averaged 23.18 per 1,000 living; of females, only 21.34.

MISCELLANEOUS SUMMARY.

We learn that Mr. D. L. Miller, Jr., of Philadelphia, is loading a cargo of crude petroleum, in bulk, for Liverpool, which is the first ever carried in that way. The vessel is fitted up with an exclusive view to carrying oil in bulk (of which it is expected she will take 50,000 gallons), and provided with twelve immense iron tanks, most of which are divided into two compartments, the lower of which may be filled and secured first. The barrels of oil are emptied directly in the tanks, and when unloaded it is pumped out. Of course the peculiar construction of the vessel unfits her for any other than the petroleum trade, and necessitates her returning from Liverpool in ballast, for which the tanks are partly filled with water. We understand that in case this experiment proves successful, it is the intention to build other and larger vessels, on the same plan; but the fact that they cannot carry return freight will, in our judgment, render them unprofitable.

THE RIGHT OF TRADESMEN TO TEST MONEY.—An action was lately tried in one of the London courts, to recover damages sustained in consequence of defendant having broken a half-sovereign while testing it. Plaintiff stated that he went to defendant's shop to buy some plants, and he handed a half-sovereign to defendant, who put it between his teeth, and deliberately broke it in half. He gave the pieces back to plaintiff, remarking that it was bad. Plaintiff, however, was convinced that it was good, and he had it properly tested by a chemist, who said it was perfectly good. The pieces were then again offered to the defendant, who refused to accept them, and told plaintiff he could try the question, if he were so minded. The judge said the defendant had acted most unjustifiably: a tradesman must apply sure and gentle tests to the coin of the realm. A verdict was given the plaintiff, for 10s. damages and costs.

A SMART CANADIAN VILLAGE.—The village of Hastings is situated on the River Trent, a few miles from Rice Lake, C. W. Three years ago there were some dozen houses in it; now there are over one thousand inhabitants, two four-story factories—one cotton and one woolen; two large saw mills, grist mill and tannery, and ten stores; altogether, it is quite a thriving village. The cotton factory is called the Trent Valley Mills; it has 30 looms, and turns out about 8,000 yards of grey cotton per week. The same firm have a small factory, where they knit gentlemen's underclothing, vests and pants.

POPULATION AND TAXATION.—A parliamentary return, just published, shows that in 1801-2 the population of Great Britain was 10,500,956, and the gross revenue £35,218,525, or £3. 7s. per head. In 1761-2 the population was 23,128,518, and the revenue £61,360,749, or £2. 13s. per head. In Ireland, the population in 1801-2 was 5,216,331, and the revenue £2,919,217, or 11s. 2d. per head; in 1871-2 the population had only increased to 5,798,967, while the revenue had sprung up to £6,792,606, or £1. 3s. 5d. per head.

PROPERTY RECOVERED FROM THE SCENE OF THE RIOTS.—Large quantities of goods of all kinds are found by the police in low tenement houses up town, where they were stored by the rioters. Also, large numbers of "innocent" persons appear who have miraculously found great amounts of jewelry, and who have had tables, chairs, sofas, and other fragile articles, thrust unwillingly upon them by the ruffians; these they have restored to the police authorities, who in turn call for the owners to appear, prove property, and take them away.

CREAM FOR CONSUMPTIVE PATIENTS.—The *Medical Reporter* says that a consumptive patient, now under treatment, is taking cream, with better effect than was experienced under the cod-liver oil, previously tried. Our advice is for all who have, or think they have, consumption, to adopt a cream diet. Eat the pure, sweet cream, abundantly, as much of it as the stomach will digest well, and we doubt not that it will prove quite as effectual as the purest cod-liver oil that can be bought.

M. ASRAVAIS, Professor of Geology at Strasbourg, has obtained a new metal from the mineral waters of Alsace. It is yellow like gold, but is soft as lead. It has been introduced among the Paris jewelers.