

**THE CRUISER NEW YORK IN DRY DOCK.**

The first actual service of our big new armored cruiser New York was to be sent to Brazil, and she steamed away from New York for Rio Janeiro on December 26. The decision to send her there was apparently made with some precipitancy by the Navy Department, for the final docking and cleaning and painting of her hull, with the taking on of full supplies of coal and provisions, were effected with great expedition. It had been considered doubtful whether any dock in this country was large enough to take in the New York, which is 380 feet 6 inches long and 64 feet broad, with a mean draught of 23 feet 6 inches, and a displacement of over 8,000 tons. But with good management no difficulty was experienced in getting her into the new dry dock at the Brooklyn navy yard, although there was only about 14 inches on each side of the cruiser between her and the dock at the entrance. Our view is from a photograph. Her three-bladed propellers are of manganese bronze, 16 feet in diameter each and 20 feet pitch. When the cruiser had been floated into position in the dock her keel was about 10 inches above the blocks set to receive her, and she was drawing 25 feet 6 inches at the stern. As soon as she was wholly inside the dock, the caisson which forms its gate was towed into the entrance and filled with water until it sunk tightly into place, after which the cruiser was nicely centered over the keel blocks and shored. The sailors worked on floats to scrape and scrub the cruiser's sides as the pumps lowered the water, and, by night of the same day, the vessel had received its prime coat of anti-corrosive paint. This dries almost as soon as it is put on, and the bottom was ready the next morning for a coat of anti-fouling paint. The latter was put on hot, with wide brushes, and the job was finished during the day, so that on the next morning the vessel was ready to be floated from the dock, having been but little more than forty-eight hours out of the water.

**Peanuts as an Article of Food.**

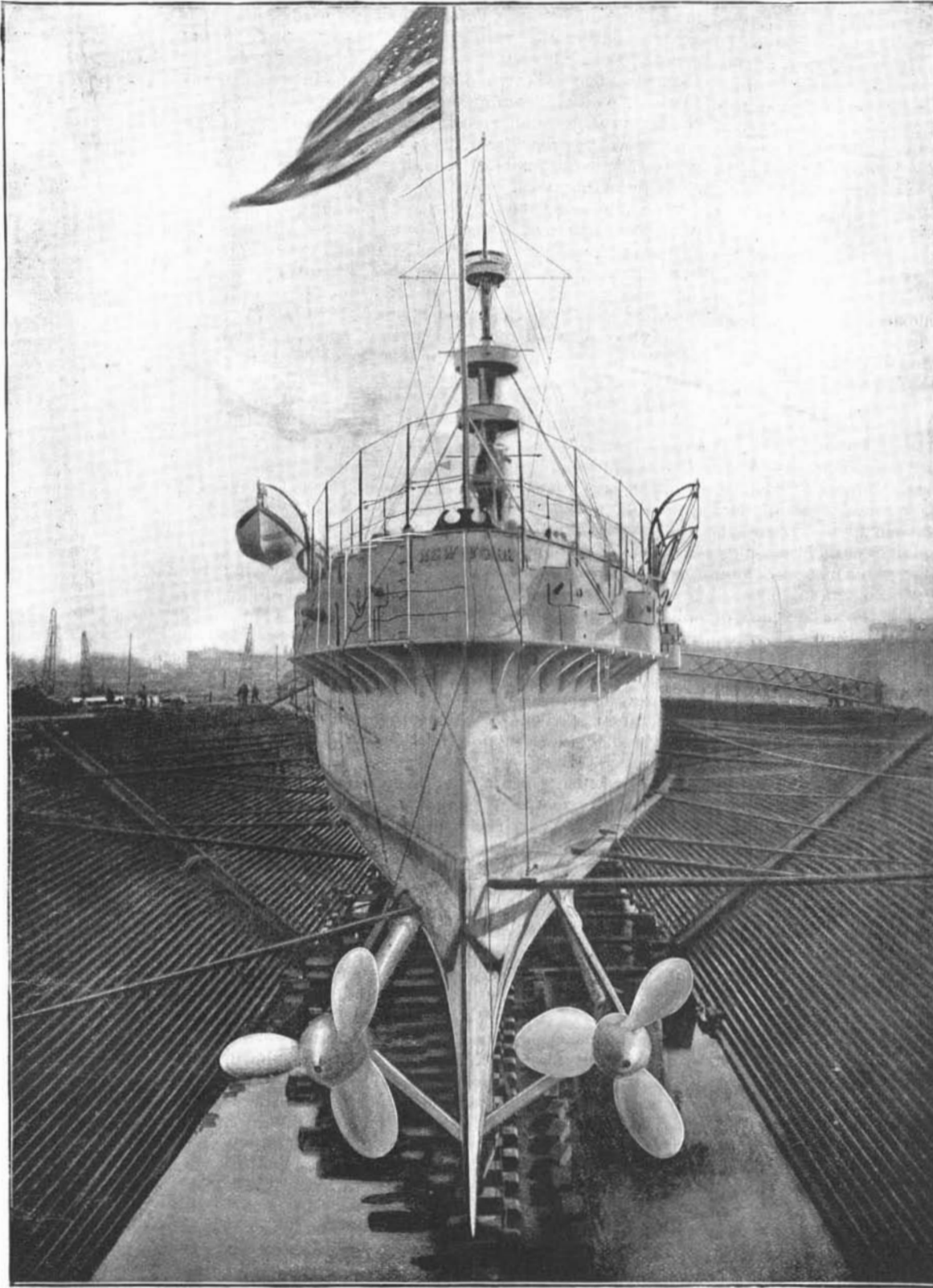
In the *Berliner klinische Wochenschrift* (cited in the *Centralblatt für klinische Medizin*) Dr. P. Furbringer treats of the peanut as an article of food rich in albumen, of which it contains forty-seven per cent, together with nineteen per cent of fat and non-nitrogenous extractive matters. He recommends the use of roasted peanuts in the form of soup or mush. On account of their cheapness, peanuts are recommended as a popular article of food, especially in poor houses and the like; moreover, they are recommended as an article of food for the corpulent, for diabetics, and for the subjects of kidney disease, in the last mentioned of whom foods rich in animal albumen are to be avoided.

**Minot's Ledge Lighthouse.**

Work could be carried on only from April to September, the sea being too rough at other times to admit of the workmen gaining a footing on the ledge, or even of approaching it with safety. The first blow was struck Sunday morning, July 1, 1855. The building of Minot's Ledge Lighthouse was a work for humanity, and therefore Sunday, the first day the weather had been propitious for beginning operations, was utilized. The weather allowed of only one hundred and thirty working hours at the ledge that entire season. Preparing a partly submerged rock to receive the foundations of a granite tower is quite a different matter from digging a hole in the ground on shore. Guards in boats

constantly plied around the ledge to pick up workmen who might be washed off into the sea, and their services were frequently required.

Not until July 9, 1857, could the first stone be laid. During that season there were again only one hundred and thirty working hours at the ledge. Anticipating such a contingency, Captain Alexander had picked out a force of good all-round workmen, so that when work had to be suspended on the ledge the morale of his force would be maintained by keeping the men occupied on shore in shaping the granite blocks for the tower, and fitting the courses on a model, so that no time would be lost in correcting errors after the blocks had been shipped to the ledge. As a matter of fact, work on the model disclosed several miscalculations which would have caused annoying delay had they not been discovered in time to be rectified on shore. The tower was completed September 16, 1860, in 1,102 hours



THE U. S. WAR SHIP NEW YORK—STERN VIEW.

and 21 minutes, at a cost of \$300,000. In shape it is the frustum of a cone, one hundred and fourteen feet and one inch in height, including the lantern.—*Gustav Kobbe, in the Century.*

**Europe Growing Colder.**

That the continent of Europe is passing through a cold period has been pointed out by M. Flammarion, the French astronomer. During the past six years the mean temperature of Paris has been about two degrees below the normal, and Great Britain, Belgium, Spain, Italy, Austria, and Germany have also been growing cold. The change seems to have been in progress in France for a long time, the growth of the vine having been forced far southward since the thirteenth century; and a similar cooling has been observed as far away as Rio de Janeiro, where the annual temperature has been going down for some years past.

**Luminous Paint.**

Nearly every one has heard of luminous paint—the sulphide of calcium; but it is probable that comparatively few persons know much about the behavior of this interesting compound. When of good quality it is quite white, as seen by reflected light, but the light that is emitted by it in the dark immediately after exposure to the direct rays of the sun is quite blue, and the emitted light is of a lavender hue directly after subjection to the action of ordinary diffused daylight. Both of these colors, however, in a dark room rapidly fade into a white light that is more luminous. A greater luminosity is produced by a short and near exposure to an ordinary artificial light, or by being placed near a window about sunset on a rainy day. The direct rays of a bright, full moon falling on it for several minutes have very little effect, making it barely visible in a dark room. After ten seconds' exposure to good, diffused daylight, which is as effective as an exposure of ten hours, this substance will give out a practical light for ten or twelve hours, and its luminosity will not entirely disappear in less than thirty hours. This great difference in the time required for the absorption and the emission of light is quite remarkable, and it makes it seem as if the light emitted were many times greater than that absorbed.

When the luminous paint of poor quality is removed from light to darkness, the light emitted by it fades rapidly, and in a few minutes becomes of a dull reddish or smoky color, much like that of the moon during its total eclipse.

A temperature of 300 degrees to 400 degrees will not put calcium sulphide into a luminous condition, though, after exposure to light, an increase in temperature of 25 degrees will make it much more luminous. That this is not a conversion of heat into light is shown by the fact that if kept at a high temperature it will become non-luminous in a shorter time. As might be expected, a lowering of temperature by ether or other volatile liquid will diminish the luminosity.

This luminous condition is not conveyed from particle to particle, like heat. If a quantity of the dry powder be exposed to the light all day, on breaking through the surface the interior will be found to be non-luminous, the light having affected the outer portion to the depth of perhaps a sixty-fourth of an inch. If a bottle, partly filled with the dry powder, be revolved in the light until the whole mass has become luminous, and then be set away in the dark, the interior loses its light as rapidly as the surface, but in doing so does not

help the surface to glow any longer or more brightly. What becomes of the interior? Does it change into heat? Perhaps some physicist, with facilities for delicate measurements, can answer these questions. This non-conductivity of light admits of the production of some impressive effects. If the hand, with fingers spread, be held against the flat surface of luminous paint while exposed to the light, a black hand on a luminous field will be seen. If, however, the painted surface, while acted on by light, be well covered by a card having an opening the size and form of a hand, and then moved about in a dark room, nothing will be seen but a white, floating specter hand. Forms of various articles may be thus shown; but perhaps the most pleasing effect is produced by a piece of lace drawn tightly over the paint while in the light. The luminous property of this substance is known to have remained unimpaired for more than five years.—*The Pharmaceutical Era.*