space in this number to the treatment of the disease. We publish a communication from Dr. Hall, the well-known editor of *Hall's Journal of Health*. It was called forth by the criticism published on page 262 of the SCIENTIFIC AMERICAN. We also reprint from the *Missionary Herald* an article upon cholera and its treatment, written by Dr. Pratt, of Marash, who was at Constantinople during the prevalence of the epidemic in that city last year.

We do not undertake to recommend any special medical treatment for this disease, but would urge upon our readers the importance of cleanliness in every respect—a removal of everything that can possibly generate malarious influences; also, a regular diet of plain, wholesome food; a total disuse of stimulants—which invite, rather than, as many erroneously suppose, ward off the disease—and to avoid excesses and excitements of every description.

An acquaintance of ours was in this city in the summer of 1849, when cholera was very prevalent and fatal, especially among the unfortunate poor, who are so shamefully huddled together in this and other large cities. There was cholera in the air, cholera in the street, cholera in the newspapers, cholera in every man's mouth, cholera in the houses of the rich, cholera in the tenements of the poor, and a general tendency to bowel complaints among all classes. Our acquaintance, being attacked with strong premonitory symptoms, at once sent for his doctor, took to his bed, covered up warm (it was a hot July day), had bottles of hot water put to his feet, and applied a generous mustard plaster to his stomach and bowels, all of which worked like a charm.

Such treatment can do no harm; and if the doctor has wisdom enough to hit upon the right remedy, and the patient can hold on to his courage, there is not much danger. In cholera the whole system is rapidly drained off through the alimentary canal, like water through a fresh break in the dam. If the break is not stopped, the whole structure gives way. It is said that fear kills more than the disease itself.

STILL ANOTHER EXPLOSION OF NITRO-GLYCERIN.

Since the article on the editorial page, discussing the spontaneous combustion of nitro-glycerin, was written, we have accounts of a still more terrible calamity from this cause, which occurred at Aspinwall on the third of April.

The steamship *European*, an iron screw steamer of about 1700 tons burthen, belonging to the West India and Pacific Steamship Company, arrived at Aspinwall from Liverpool on the second of April, and the next morning at seven o'clock the explosion occurred.

The wharf beside which the steamer was laying, was about four hundred feet long and forty wide, and was constructed in the most substantial manner, with a heavy flooring and roofed over its entire length. The *European* was on the north side, and her sister ship of the same line, the *Caribbean*, on the other side. The freight house was a splendid building, constructed of stone, slate and iron entirely, and was about three hundred feet long and eighty wide.

To those removed from the wharf the first visible effect of the tremendous force of the explosion was in the instant and almost entire demolition of the freight house—a structure of the most durable nature, and one that was apparently able to resist almost any explosive force except within the building itself. One track only ran through the building, the rest of the floor space being devoted to a platform for freight discharged from or to be loaded in cars. Both the end walls of this building were demolished, and the superb iron roof, rafters, girders, braces, etc., fell into the interior of the building, forming a huge unshapen mass of ruins and destruction, where a moment before everything was strength and symmetry. Of course, in an instant after the occurrence, when those unhurt recovered from the effect of the concussion, a rush was made for the wharf to succor those injured, and here it was that the whole scene burst upon the view—a scene heartrending and awful, and telling that many of those who a few moments before were in the enjoyment of life and health had forever passed away from earth. The iron plates of the ship's hull were torn out completely, and almost everything about decks was a mass of ruins. The wharf abreast of where the explosion occurred was completely cut through the piles, cross beams, flooring, and in fact everything was carried away, and the entire structure was shattered, every plank even being started from its position. On board the *Caribbean* the destruction was very great; her boats were all crushed, her deck houses shattered and many of the heavy iron beams and knees of the ship's hull were broken like pipestems.

The *European* was towed out into the bay by a naval vessel, when she took fire, a second explosion of moderate violence occurred, and she sunk.

It was some time before the true cause of the disaster became known. The bills of lading called for no gunpowder, and the ship had but a small quantity for firing signal guns. No steam was up, and all were at a loss for a knowledge of what it was until the seventy cases of glonorin, or nitro-glycerin, shipped at Liverpool for San Francisco, told the whole story, and brought to light how much more dangerous an article than gunpowder formed one of the principal items of the ship's cargo.

The number of killed and wounded is not accurately known, but it is stated at upwards of seventy.

FAILURE OF A LAUNCH.

Recently an attempt was made in England to launch a huge ironclad war vessel, called the *Northumberland*, but after running down about 170 feet on the ways, she stopped, and at latest advices was hard and fast. Our foreign contemporaries are full of accounts of the disaster, and attribute it to different causes. The most apparent one, however, is the slight incline given to the ways, and the immense weight of the ship, which crushed out the lubricants between the sliding timbers, and interlaced the fibers of them. A very forcible realization of the effect of friction is thus given, when it is seen that it can suddenly arrest the momentum of a mass weighing over 9,000 tuns, after sliding 170 feet in a few seconds.

From the *Mechanics' Magazine*, we take a portion of an article referring to the preparations which were made to launch the ship anew—all total failures:—

"To prevent the ship launching herself unexpectedly during some exceptional high tide, she has been shored and wedged in, in such a manner, that any downward movement on the ways seems impossible. In addition to this, two chain cables have been taken through the hawse holes and made fast to anchors buried in the ground, the ship's own capstans having been used to draw the cables taut. The arrangements for floating are more complex; her keel has been wedged up throughout its entire length, so as not only to secure and ease the weight up, but take some of her enormous pressure off the forward cradle. In addition to this, twelve large wooden pontoons have been constructed, each of which is 30 feet long by 9 feet broad and 9 feet deep, perfectly caulked and water-tight. They have all been prepared from molds, so that they fit close to the bottom of the ship, on each side of which they are made fast in pairs. The floating power of these is equal to 400 tuns, in addition to which 100 tuns more are obtained from a number of empty puncheons made fast under her stern, Eight lighters have also been moored under her stern at dead low water, which, with the previous appliances, give a floating power 1,000 tuns. Beyond this a dredging machine having a steam capstan on board, and moored in the river, is reckoned on for another 100 tuns, beside powerful purchases applied on both sides of the ship from the Millwall yard. Under the bows of the *Northumberland* three powerful hydraulic rams are placed, two of which, equal to a total pressure of 1,200 tuns, are fixed one against each cradle, and both are securely supported with timber backings down to the launching ways. The third, similarly held by a timber frame, is of nearly 1,000 tuns power. This, however, is fixed in the center, and upright, so that it can work from the ground up beneath the bows of the vessel, which it was assumed it would, to the full extent of its immense pressure, partly lift and ease off the ways forward.

But notwithstanding this array of power, the trial on Saturday to launch the vessel failed—not an eighth of an inch did she advance, although she moved vertically at the stern. So Monday, with its high tide, was waited for, and Monday came and went, but the *Northumberland* remained, although there was a great increase of power applied to move her. It is therefore now proposed to wait for Monday, the 16th inst., on which day it is anticipated the tide will be the highest of the year, and give nearly 25 feet of water under the *Northumberland's* stern post. In case of a favorable wind it may even rise as high as 26 feet—a depth that would place nearly 8 feet of water under her bows, which ought to be nearly sufficient to float her. But in order to make assurance doubly sure, it is intended to take every possible precaution against the contingency of low water by adding such powers of flotation to the ship as will enable her in a great measure to get off without an unusually high tide. To this end the lighters will be dispensed with and in their place two small frigates will be lashed astern at the low water preceding the high tide. Each will be fixed to the hull so as to have an independent action, while arrangements will be made to enable them to slip their fastenings and get clear of the vessel directly she begins to move quickly. In addition to these, four more large pontoons are to be placed under the stern. They will have a greater floating power than that of the whole ten now under the vessel, and will exercise their greatest power at the greatest advantage, and exactly where it is most needed. The ways will be well greased and two additional hydraulic rams will be brought to bear upon her.

A Flint Piano.

A curious novelty has just been brought to London and is about to be exhibited to the public. It consists of a remarkable-looking piano, made of flints suspended from an iron frame, which are struck with a short flint to produce the notes. The flints are about forty in number, and elongated, but of various lengths and thicknesses. They are arranged in the order of their tone, and the labor and investigation of years were required before the complete scale was formed.

The *Star* says that M. Baudry, the gentleman who has made the instrument, was two years seeking for one particular stone, or tone—the terms being here almost synonymous. Two other tones were, after an almost endless investigation of flints, obtained from pieces of schist, the only exception to the flint tones which form the instrument. M. Baudry entertained some friends on Saturday afternoon last with a performance on this curious instrument, which was much admired, not only for its novelty, but also for its musical effect. The tones are unlike those of any known instrument, as may be readily comprehended by any one who knows the ring of a piece of flint, and possess a sharpness that renders the performance peculiar, though by no means unpleasing. The flints are many of them very peculiar in form, and it would be a matter of no small difficulty to frame any coherent theory of the causes of the variety of tones observable, for they are by no means in the exact ratio of the size or weight of the different flints. M. Baudry's perseverance and skill in working out his ingenious idea have met with that success which he sought, and he deserves now to meet with a further success, which it is to be hoped will be awarded to him by the public.—*Mechanics' Magazine.*

A Cheap Galvanic Battery.

M. Gerardiu has sent a note "On a Battery of Iron Turnings," which he thus describes:—I replace the zinc of a Bunsen's battery by iron borings; an iron bar placed in the middle of the borings serves as a reophore. The iron is placed in common water. In the porous vessel I place a solution of perchloride of iron with *aqua regia* added. The electricity of this solution is collected by a carbon serving as the positive pole. The carbon is made of powdered coke agglomerated with paraffine. Such a battery may be made of large dimensions, and a great deal of electricity obtained at small cost.

ELECTRIC lights have been definitely established in the two lighthouses of the Heve, near Havre. The intensity of each of these new lights is estimated as equivalent to 5,000 carcel lamps, and it may be increased twofold, with little additional cost, whenever the condition of the atmosphere requires it.