HYDRIODIC ACID.

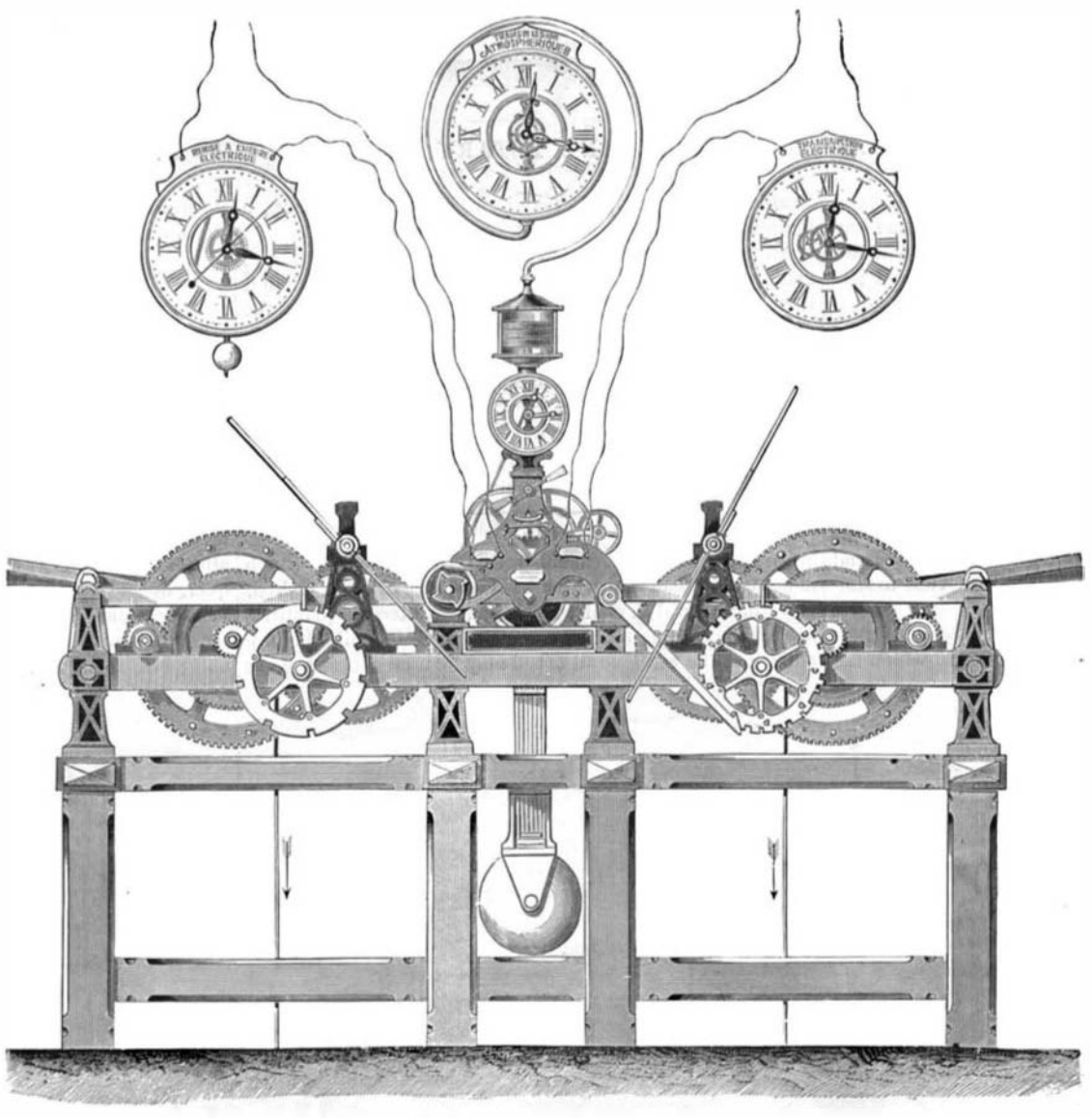
Dr. W. Gill Wylie, of this city, calls attention in the *Medical Record* to the value of hydriodic acid as a therapeutic agent in certain cases where the use of potassium iodide is indicated, but where the continued use of the latter would irritate the stomach and seriously interfere with digestion. Hydriodic acid, which is not even mentioned in the text books on therapeutics, is prepared by mixing say 60 grains of potassium iodide with 90 grains of tartaric acid, dissolving in water, and adding sufficient heavy sirup to make four fluid ounces. The object of the sirup is to prevent a decomposition whereby the iodine would be set free. The case that first suggested this remedy was one of asthma of long standing. On trial it was found that one teaspoonful of the above mixture had as much influence on the bronchial surfaces as twenty grains of potassium iodide, and produced no bad effect whatever on the stomach. The author states that for the past six years he has had uniformly good results in the use of hydriodic acid in bronchitis, and in chronic or subacute catarrhal diseases. He has found that it acts as an irritant and does more harm than good, however, in acute febrile stages. He has also used it in chronic malarial poisoning, and in Grave's disease, and recommends its use in place of iodine in goiter and adipose tumors. In a case of the latter he found that it relieved the dull pain about the tumor and slightly reduced the bodily weight of the patient, who was very fleshy. In the use of the new remedy Dr. Wylie says that he has seldom found it necessary to increase the usual dose to obtain the desired effect.

PNEUMATIC CLOCK.

The pneumatic clocks that were exhibited in the Austrian and American sections of the Paris Universal Exhibition of 1878, were described by us not long since. We give herewith an engraving, which we take from *La Nature*, of a form of pneumatic clock that has been in use for some time in France. It is a large town clock, something like the one which has been in use at Notre Dame since 1867.

The transmission of time by the compressed air and vacuum is effected by means of a piston that moves freely in a pump barrel. The piston is of considerable length and is air-packed, so that little or no air escapes around it.

Every minute, or every half minute, the clock elevates the piston, creating an air pressure in the pneumatic tube, which operates the hands of a distant clock. The piston is allowed to descend after each upward stroke, producing a vacuum, which returns the parts to their original position preparatory to another forward movement of the hands as the piston again descends.



COLLEN'S PNEUMATIC CLOCK.

Active Volcanoes in Java.

The latest accounts from Singapore state that the volcanoes in both the eastern and western districts of Java are in full activity. A broad river of fiery lava was flowing from the crater of Smeru down to the southern coast, illuminating all the neighborhood at night with its ruddy light. The Gedeh mountain was ejecting an enormous amount of cinders, which were completely covering all the surrounding district.

A Toy City.

A notable example of patient, long-continued, ingenious, but utterly useless labor, is described by a correspondent of the Amherst (Mass.) *Transcript* as on exhibition in Boston. It is the work of a German-American cabinetmaker, Joseph Bergmann, who has been engaged upon it for seventeen years. It represents a city, built in the Swiss style, with mansard roofs, bay windows, and a series of balconies with verandas, etc. The structure stands on a base, representing a hillside, a ledge of rocks with underground railways, etc. There are sixty-five automatic workmen, at work in the mills and about the village, as natural as life. The motive power of the mills is furnished by two overshot water wheels, the lower one taking the waste water and running at right angles with the upper one. The remainder of the machinery, as well as the automatic workmen, is run by weights. The city, or village, is surrounded by trees and shrubbery, drives and walks, a playing fountain, a running stream, a miniature lake, and all that goes to make up the picturesque in nature. The basement of the principal building is occupied by a linseed oil stamp mill in full operation, with three workmen. On either side is a tunnel through which trains of cars pass. At the rear of the building is a blacksmith's shop; the bellows are blowing, the fire on the forge glows, and two blacksmiths are busily engaged in alternately heating a bar of iron and pounding it on the anvil, the strokes of their hammers being distinctly audible. A third is shoeing a horse, the proprietor is at work, and the wife of the last is just entering, bearing her husband's dinner. The third story is occupied by a grist mill, the smut mill being below, both in full operation. One man is dressing the stone for the hopper, while a second supplies the hopper with grain from a neighboring room; the latter empties his measure from his shoulder, returns it in a natural manner, and passes in and out at the door, closing it after him each time. An elevator ascends on the outside from the basement with a load of grain, dumps it, and descends again to be refilled. Just below the elevator the millwright goes up and down on a ladder. Under an oak tree's kindly shade, near the banks of a murmuring stream, sit two lovers, who, by their motions and gestures, would appear to be carrying on an animated conversation. To the right center of the building is a sawmill. The log is propelled on the carriage, the upright saw passes through it slowly, it is then gigged back, the man at the end sets the log for a new cut, and a fellow workman opens the flume gate, restarting the machinery. A third man is engaged sharpening a handspike with an ax. The fifth and top floor of the edifice is supposed to be the residence of the proprietor. The windows are sashed, the doors paneled, and the floor made of matched boards not over an eighth of an inch wide. Paintings, with gilt frames, and lace curtains adorn the apartment, which is complete in all the details belonging to a drawing room. A similar exhibition in Brooklyn recently gave no evidence of the skillful labor attributed to Bergmann's work, as described above. Whether it was the same or not, we do not know.

Anthracite Coal in Mexico.

According to the San Francisco *Mining and Scientific Press* Sonora possesses a vast field of anthracite coal—the only anthracite yet discovered on the Pacific coast. It is said to belong to a very old geological formation, probably Silurian or Devonian. The only outcrop which is at present worked lies about 120 miles northeast of Guaymas, and a branch line of the Sonora railway is contemplated to develop it. The mine is a few miles north of the flourishing mining towns of La Barranca and Los Bronces, each supporting some 2,000 inhabitants. The coal has been used for two years for steam purposes at the Barranca quartz mill, it containing less ash and leaving no clinkers on the grate. It burns with the short blue flame of carbonic oxide, which is characteristic of all anthracite coal. There are three veins of the coal, one of which is seven feet thick, another two and one half feet, and the third of unknown thickness, while there are indications of a seam lying beneath the seven foot vein—the one now worked—of the same or greater thickness. Outcroppings of the veins are traced for many miles. The analysis of this coal as compared with the average grade of Pennsylvania anthracite is as follows:

	Sonora Coal.	Pennsylvania Coal.
Fixed carbon	94 to 96 per ct.	85 per ct.(about).
Ash	3 to 4 do.	10 do.
Moisture	1 to 2 do.	4 to 5 do.
Sulphur	0·0 do.	a trace.
Bitumen	0·0 do.	a trace.
Specific gravity	1·77	1·50

The dip of the discovery is 26° toward the opening, rendering the mine easy of drainage and cheaply worked. The length of the branch from the main line at Noria del Valle (32 miles from Guaymas) necessary to reach the mine is 98 miles. It is estimated that after the construction of the road the coal may be marketed in San Francisco and South American ports at $8 to $9 per ton.

Medical Photography.

At a recent meeting of the Photo Section of the American Institute, in this city, Mr. Mason exhibited to the Section some photographs of subjects taken at his studio in Bellevue Hospital. In his remarks he said:

I do not exhibit these prints as specimens of fine photographic work, but as curiosities of disease and how photography is used to illustrate disease. Some of them show the patient both before and after treatment. Such subjects are not very easy to keep still a long time, because most of them are in pain. Something more than ten years ago I was requested by several members of the surgical staff to illustrate the diseases treated at the hospital, and, after considering the matter some months, finally accepted the proposition, and was appointed the official photographer for the department. There were at that time only three surgeons on the staff who seemed to have an idea that photography could be made useful, or, rather, that it might prove an important adjunct to their work. These three had their most important cases photographed when they were received, and after an operation or when they were discharged. After two or three years other members of the staff, seeing the importance of the work, slowly came in for their share, until at the present day the men who first took little or no interest in the introduction of photography patronize it the most extensively. I made for some of these surgeons a large number of prints of important cases, of which some are sent to Europe to illustrate the processes used in the treatment of diseases in New York. I make three copies, which I furnish free—one to the visiting surgeon in attendance, another to the house surgeon who has charge of the case, and another print I mount in the books of the hospital. Other prints are made on the surgeons' private orders at little more than cost price. When you refer to the hospital books provided for the last few years, you can find the most important surgical cases not only fully described but illustrated. Many observers have thus been able to avoid mistakes and errors which have been brought to their notice through the means of photography. Thus we see that the surgeons and histologists, like most other scientific men, are more or less dependent on photography in recording for others what they are doing.

Unshod Horses.

It has been before stated that an experienced farrier in England was advocating the abolishment of horseshoeing, and now a writer in the London *Times* has been trying the experiment, and thus reports: "When my pony's shoes were worn out I had them removed, and gave him a month's rest at grass, with an occasional drive of a mile or two on the high-road while his hoofs were hardening. The result at first seemed doubtful. The hoof was a thin shell, and kept chipping away until it had worked down beyond the holes of the nails by which the shoes had been fastened. After this the hoof grew thick and hard, quite unlike what it had been be-