

been proved in practice to be of little consequence. Although water for water gases costs nothing, yet the machinery and fuel are as expensive as for the manufacture of more useful products.

This theory, in my opinion, is consistent with all the facts with which I am acquainted. It affords a clear explanation of the irregularities and failures of Sanders' gas which have been reported, and also of the peculiar working of Dr. Cressou's retort, about which so much has been said in the Philadelphia papers.

THE CONCLUSIONS.

From a careful comparison of all the evidence to which I have had access, I have arrived at the following conclusions.

1st. That persons connected with the Water Gas Works of the Girard House were unwilling to permit me to make a scientific and practical examination of the process.

2d. That the Sanders water gas process does not produce the increased quantity of illuminating gas claimed for it.

If I have erred in these conclusions, fortunately the Keystone Gas Company have the power to confute me at once. For, let it be distinctly understood, that it is only necessary to turn a steam cock and watch a meter and burner for a few minutes to settle the leading question upon which the whole claim is founded. Such a test, made before reliable witnesses, is a ready way to settle the matter and crush all their supposed enemies. Here is the point at issue: without steam, the Girard House apparatus produces rosie gas; with steam, it produces Sanders' water gas, but five times as much and nearly as good, and at about one-fifth the cost. Surely, this is a clear, simple statement; and it is just so clear and simple that its truth or falsity may be determined by the turning of a stopcock.

Finally, it is proper to state that I concluded to go to Philadelphia only after the consent and almost request of gentlemen interested in the success of water gas, and with assurances that the company would be pleased to see me and afford me all the necessary facilities for examination.

CHAS. A. SEELY, Chemist.

New York, Oct. 29, 1860.

HOW MUCH PORK WILL A BUSHEL OF CORN MAKE?

The following valuable facts are from the *Valley Farmer*:—Upon the question of "how much pork will a bushel of corn make?" Mr. Richard Thatcher, of Pennsylvania, gives, in the *New York Tribune*, the result of his feeding scalded or cooked corn meal, in several instances, to fattening hogs. The result of one trial gave sixteen and one-half pounds of pork for each bushel of fifty six pounds of meal fed out. In another instance, seventeen and nearly one-half pounds were the gain from a bushel. The breed of hogs experimented upon was the "Chester" (county, Pa.) white, which we regard as among the best breeds now in the country. We have recently seen accounts of several other experiments of feeding hogs in the same way, with similar results, while the same breed of hogs fed in the ordinary way, upon dry corn, in the ear, gave a return of but about one-third of the weight compared with those fed on the cooked meal.

The experiments of Mr. Clay, of Kentucky, as detailed in the December number of the *Valley Farmer*, for 1856, afford conclusive evidence of the advantages of feeding cooked over raw food. In the experiments on the same animals, it was proved that dry corn would afford a gain of about five and three-quarters to six and three-quarters pounds of pork to each bushel consumed, but when changed to food prepared by grinding and cooking, gave a return of from fifteen to nearly eighteen pounds of flesh for each bushel of corn fed out. These various experiments demonstrate facts worthy the consideration of farmers, and especially when the price of corn and pork is constantly advancing.

With care in breeding from a good stock of hogs, and with their proper management throughout, keeping the hogs constantly thriving, at least an average of fifteen pounds of flesh may be received from every bushel of corn consumed. A few well conducted experiments in feeding, with appropriate apparatus for preparing the food, compared with facts determining the amount of gain from the ordinary method of feeding, would forever settle the question and lead to valuable improvements in this most important interest to Western farmers.

USEFUL MEDICAL HINTS.

We find the following remarks (by the editor) in the *Cincinnati*, a scientific and agricultural journal, published at Cincinnati, Ohio:—

If a person swallows any poison whatever, or has fallen into convulsions from having overloaded the stomach, an instantaneous remedy is a tea-spoonful of common salt and as much ground mustard, stirred rapidly in a tea-cup of water, warm or cold, and swallowed instantly. It is scarcely down before it begins to come up, bringing with it the contents of the stomach; and lest there be any remnant of poison, however small, let the white of an egg or a tea-cupful of strong coffee be swallowed as soon as the stomach is quiet; because these nullify many virulent poisons. In case of scalding or burning the body, immersing the part in cold water gives entire relief, as instantaneously as the lightning. Meanwhile, get some common dry flour, and apply it an inch or two thick on the injured part the moment it emerges from the water, and keep sprinkling on the flour through anything like a pepper-box cover, so as to put it on evenly. Do nothing else; drink nothing but water; eat nothing until improvement commences, except some dry bread softened in very weak tea of some kind. Cures of frightful burnings have been performed in this way, as wonderful as they are painless. We once saved the life of an infant which had been inadvertently drugged with laudanum, and which was fast sinking into the sleep which has no waking, by giving it strong coffee, cleared with the white of an egg—a tea-spoonful every five minutes—until it ceased to seem drowsy.

THE HIGHEST BUILDINGS IN THE WORLD.

The following list of lofty buildings is taken from the French scientific almanac (*Annuaire par le Bureau des Longitudes*) for 1860. The measurements are above the earth in each case (not above the sea):—

	Meters.	Feet.
Highest Egyptian pyramid.....	148	479
Tower of the Strasburg cathedral.....	145	465.90
Tower of St. Etienne (Vienna).....	138	422.75
Hall of St. Peter's (Rome), over the dome.....	133	433
Tower of Michael's (Hamburg).....	130	426.50
"The Arrow" of Antwerp church.....	130	426.50
St. Paul's at London.....	110	360.90
The Milan cathedral tower.....	109	357.60
Panthéon at Paris.....	79	259.18

This may answer the question asked by one of your correspondents not long ago, to name the five highest buildings in the world. Who will give us an authentic statement of the height of American buildings?

[To the above we add that the chimney of Messrs. Tennant's chemical works in Glasgow, Scotland, is 450 feet in height, and there is another now building in that city which is to be 460 feet.—Eds.]

APPLICATIONS FOR THE EXTENSION OF PATENTS.

Machine for Manufacturing Cordage.—William Joslin, of Cleveland, Ohio, has applied for the extension of a patent granted to him on the 19th of January, 1847, for an improvement in the above-named class of inventions. The testimony will close on the 24th of December next; and the petition will be heard at the Patent Office on the 7th of January, 1861.

Diaper Pins.—James Rabbeth, of East Hartford, Conn., has applied for the extension of a patent granted to him on the 21st of January, 1847, for an improvement in the above-named class of inventions. The testimony will close on the 1st of January next; and the petition will be heard at the Patent Office on the 14th of same month.

FIGS IN MARYLAND.—We were not aware that figs were grown in Frederick county (says the *Frederick Union*) until we saw and tasted them at the agricultural exhibition in this city last week, and learned, upon inquiry, that between four and five bushels are raised each year at Mt. St. Mary's College, in this county. Those we saw were the second crop, in size about as large as a hen's egg. The first crop, we learned, are about twice the size of the second crop.

LADIES' SKIRTS IN COURT.—On the 1st inst., in the United States District Court, this city, before Chief-Justice Nelson, a verdict of \$2,000 damages was given by a jury against Moran, Kelly & Co., for infringing the patent of Dougherty and Draper, for what is known as the "woven skeleton skirt." The defense set up was that the invention was not new and not patentable, but the evidence failed to prove this; hence the jury sustained the patent.

WEALTH OF THE CANADAS.—The English journals contain glowing accounts of the beauty and fertility of the scenery and soil of Upper Canada, furnished by the representatives of the London papers who accompanied the Prince of Wales to America. The *London Times'* correspondent, in speaking of the advantages offered to British emigrants from Upper Canada, says that in this agricultural El Dorado there are millions upon millions of acres of virgin ground, waiting only for the hand of the cultivator to disgorge their boundless wealth, and urges that all vexatious restrictions with respect to the purchase of land should at once be abandoned, as he anticipates a "mighty future for Upper Canada if emigration is only fairly encouraged and developed by the government at home." This sounds very much like the discovery of a new country. If we mistake not, Upper Canada has long been down on the maps, and its resources pretty well understood on this side of the Atlantic.

OLD BATTLE SHIPS.—The commission appointed under Senator Mallory's resolution for an examination of the sailing vessels of war belonging to the United States navy have completed their survey of the ships at the navy yards, and are now deliberating on the subject. The commission consists of Captains Stringhorn and Stover, and constructors Lenthol, Delano and others. They will be ready to report in a few days. Our old line-of-battle ships are all found, it seems, to be sound, and capable of conversion into war steamers; that is, they have sufficient breadth of beam for the purpose. The cost of conversion and of machinery, &c., will, of course, be reported. The twenty new steamers which have been built under this administration have been found eminently useful, and more of the same class are much wanted for the protection of our commerce. The Secretary of the Navy will, as heretofore, recommend to Congress a provision for an additional number of war steamers. The twenty war steamers last built cost but \$5,000,000 in the aggregate.

A NOVELTY IN RAILROAD TRAVELING.—According to a correspondence which we find in a French provincial paper, the railroad companies in France are about to put in operation a plan which cannot fail of being received with favor by the public. It is proposed to run, each week, a train of cars between distant points, for which tickets can be obtained in advance, and to which the companies will guarantee to admit only a limited number of passengers, four hundred, for example. All the places being occupied, the engine not carrying any "dead weight," to use a technical expression, the traveler can be transported at the price of merchandise; and the companies, not only without any loss, but even with a certain and calculable profit, will apply to these special trains a tariff, the great cheapness of which cannot fail of producing an immense business. By this arrangement the fare is about one-fifth the usual price. Cannot some such plan be perfected by our railroad companies?

HOW TO OBTAIN A PATENT.—We have just issued a circular in the German language, giving full directions how to obtain Letters Patent for new inventions. Any one who may desire this circular will receive it free of charge by addressing Munn & Co., 37 Park-row.

AIR ENGINES.—The report of the discussion of the Polytechnic Association, published in this week's paper, will be found of more than usual interest, as the subject of air engines was the leading topic and was handled in a very intelligent manner.

An intelligent writer in the *Atlantic Monthly*, who spent some time in the Portuguese island, Fayal, one of the Azores, in speaking of the extreme indigence of the mass of the people, says that he knew one old woman who boarded with a poor family for five cents a week.

The American Institute at their meeting, Nov. 1, voted to sell their property on Broadway, and put up a building in the upper part of the city, for their exhibitions, &c. Their property in Broadway is, we believe, in the neighborhood of Leonard-street, and is said to be worth about \$150,000.