

Scientific American

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Great Experiment with the Fire Annihilator
---Excitement.

Public notices were given that a grand experiment with the Fire Annihilator would be made on the 18th inst. (last Thursday) at 61st st., this city, at 1 P. M. The handbills and advertisements stated that a house would be set on fire, and all that had been claimed for the "Annihilator," by Mr. Barnum and others interested, would be confirmed by the annihilator extinguishing the flames and saving the burning house. It is well known to our readers that this invention has caused great excitement in our country, and that the company which owns the patent is composed of very wealthy and what are termed "big men." Determined to be on the first step of the ladder, we purchased a copy of the patent specification, got up engravings of the drawings, and published them in No. 1, this volume, Scientific American. Having served as a fireman, and being not a little acquainted with the management of fires, also with the nature of the gases which extinguish flame, we took occasion, after a calm review of the matter, to say that we had no confidence in the general utility of the "Fire Annihilator."—Our language was moderate but decisive, nevertheless, being lovers of fair play, and being guided by the rule of honesty to confess wrong, when our error is demonstrated, we said in the article referred to, "we shall watch its progress and report its effects; if it proves all that some have said about it, we shall say so, when convinced by *ocular demonstration*." We were on the ground before the appointed hour. The house built for the experiment was a small frame building 20 feet square, placed in a field on an elevated position. It was a rough board cottage the main body of which was two stories high, and had a wing at each side. There was no bottom floor; the outside boards were placed vertically, with weather strips nailed on the seams. We were permitted to examine the building by the door keeper, before it was set on fire. In the middle of the main part there were about a dozen 12 feet boards, some scantling, &c., set up vertically through a hole in the floor—the only floor—of the second story. Shavings were stuck around and between the boards, which were placed quite wide apart, and the roof inside was plastered with lime, and not yet dry. A crowd of police were there, and a chain was placed on stakes around the building, about ten feet from it. At half-past one o'clock, a gentleman came on the back roof, and requested all to retire outside as Mr. Phillips was going to set the building on fire. It was proposed that a committee should be appointed by the crowd to examine the building, witness the operation inside, and report. The committee was appointed, and consisted of Alfred Carson, our Chief Engineer, R. B. Coleman, John P. Lacour, Zophar Mills, Moses O. Allen, and Mr. Eichell. The following is their report:—

"First, The building was constructed of green spruce timber, and constructed in such a manner as would have been a difficult matter, under ordinary circumstances, to have got it fairly on fire.

Second, In our opinion Mr. Phillips had every opportunity afforded him to fairly test the experiment, and everything was in his favor.

Third, A slight fire was kindled inside the building, and the annihilator was almost instantly applied, before the fire got headway to any considerable extent—it partially extinguished it."

We would report further:—the wind was high and freezing, and if there was any virtue in the Annihilators, and the experiment fairly conducted, the character of the "Annihilator" would have been established forever. We counted twenty-one large annihilators, the price of each \$35: if the shavings had been let alone, the fire would have gone out of itself, without the application of a single machine. The crowd, numbering thousands, was dissatisfied, numbers jumped over the chains ascended the roof, entered the windows, and exposed to the crowd the boards which had

been set on fire and extinguished—they were not charred, some not colored with smoke. They then got a barrel of tar, piled up boards inside, and set the building truly on fire; for a long time this was difficult to do: we never saw boards so difficult to burn. When fairly on fire there was a good opportunity to try the effect of the Annihilator. Not one was applied,—the building burned to the ground. The crowd jeered and cheered, shouted "humbug," and "where's Barnum?" Mr. Phillips, we were told, commenced to apply the Annihilator against the request of the Committee, who thought it was not then fairly on fire. We were told that eight Annihilators were applied: we do not know how many were applied; we saw twenty-one full charged before the fire, besides a large box of charges, and 16 empty after it. When we examined the building we were satisfied that the experiment was not intended to be a fair one; two buckets of water could have done all the "Annihilators" did; still, we felt for Mr. Phillips; he was no doubt pained and mortified at the result, but a New York populace could not be satisfied with what he did; and wherewithall, if he had been a New York fireman, he would have managed his own invention much better.

We hope that none of our friends have lost anything by this invention; we early raised our warning voice, not that we were opposed to the owners or the invention, but because we deemed its scientific qualities of no practical utility for the purposes intended. The thousands assembled to witness the experiment, without perhaps a single exception, believed it to be an entire failure.

It was intended by the American Fire Annihilator Co. to make a fine speculation out of it. The private circular of the Annihilator Co., stated—"An end must be put at once to every serious conflagration in America;" it has not put an end to one: a poor wood frame house put an end to 21 Annihilators, at \$35 each—total cost \$735: and two buckets of water, costing 0, could have done as well. An agent for a machine was to have a profit of 66 3-8 per cent. One of the great advantages of this invention, says the circular, "will be the immediate reduction it must occasion in the rates of insurance." We have not heard of this having been done in a single case. None would have rejoiced more than we had this invention been a genuine "Fire Annihilator."

To Our Readers.

Next week will bring to a close the year eighteen hundred and fifty-one. Many changes have taken place during the brief months and days of it that are gone. A great number of changes generally take place about the new year, and it is customary for fathers to present gifts to their sons, and employers to their apprentices. Last year we directed the attention of parents and employers who had sons and apprentices of a scientific and mechanical turn of mind, to make them presents of the Scientific American, such as by presenting them subscriptions for a year. We have reason to know that the recommendation was acted upon by many, and with gratifying results. No man can be intelligent now unless he peruses scientific periodicals, and no young man can grow up intelligent unless he makes science and art part of his studies.

This is also a very favorable time for persons to subscribe for the Scientific American. We can send all the numbers for the last quarter under one cover, and the new year cannot be commenced in a more becoming manner than by subscribing for a periodical that will present weekly, during 1852, all the improvements, inventions, and discoveries made in science and art. Nothing but useful and reliable information appears in our columns, and considering the character of our paper, the objects to which it is devoted, the great number of engravings we present in a year—about 400—it is perhaps the cheapest paper in the country.

During the year 1852, with the strength of Him who giveth blessings, we will continue to devote our energies to still greater improvements in our paper, and with our great and increasing experience we believe that the future of the Scientific American will be still more ably managed and edited than the past. We

are determined it shall be so, and our friends we know trust a good deal in what we say. Those who can influence a friend and a neighbor to subscribe, have our thanks; the more subscribers we have, the more we expend to make our paper worthy of their support.—Upon this principle we have acted, do act, and will act. We hope our readers will enjoy a happy New Year.

Taste.

What is taste? This is a very difficult question to answer. It means something taken into the mouth, which conveys a pleasurable or a disagreeable sensation to the mind: this is physical taste, and yet, although some have called it "a natural quality" or sense, there is the strongest evidence on hand to the contrary. It is a very common saying, "there is no accounting for taste;" this is true in a wide sense, but it is no more true than to say "there is no accounting for habits." The fact is we can account for the manner in which many tastes are acquired, but why such and such tastes should be acquired—why people have a disposition, and, as it were, a fatuity to acquire them—is more than we can account for. Why is it that so many acquire a taste for chewing tobacco—a taste, which, when acquired, or become a habit, is like cutting off a right hand to part with? We should think it very singular to witness people chewing lime, but thousands of Hindoos do this. The natives of the arctic regions reject sugar with loathing, but train oil, candles, and soap, are luxuries to them. Our children like sugar candies, the children in the interior of Africa, use rock salt for sugar sticks. The Frenchman likes frogs, and the Chinese dogs and bird-nest soup. Some acquire a morbid taste for clay and slate stones, others for opium and brandy. One man has complete control over his tastes, that is, if there is any thing for which he has a desire to eat or drink, and he is convinced that it would be injurious to him in any sense, he can calmly thrust the temptation to one side, and feel happy at the sacrifice. Another man sacrifices reason, interest, and conviction to the gratification of his appetite, and seems to be led a miserable captive by this passion. Some would say, upon the system of reasoning employed by Liebig, in his Animal Chemistry, that "all this is easily accounted for, to support the equilibrium of the body, upon the principle that food is to the body what fuel is to the fire. The Esquimaux at the North requires a great amount of carbon to keep up the heat of his body in that cold region." This reasoning may answer with some, but although alcohol and tallow contain far less oxygen, still sugar contains a great deal of carbon, viz., 12C, 11H, 11O., (carbon, hydrogen, and oxygen). It is also well known that, in tropical countries much olive oil is used as food; in Israel "corn and oil" was common food, and it is so in Greece, Turkey, and Spain, and other nations, now. In Africa the natives eat twice as much food as Americans in general.

When a person is convinced that the use of any beverage or article of food is injurious to the system—and certainly it is no difficult matter to know this—he should deny himself the gratification or indulgence of his appetite at once. He should endeavor to make every passion subject to reason and moral principle; he who does not do this is not safe, and never can be a great nor a good man; he may be led away by the most absurd and foolish taste for something useless, loathsome, and destructive to health and happiness.

Dr. Lardner and Steam Navigation.

It has been commonly reported, and has almost become a proverb, to illustrate the opposition of learned men to the introduction of new improvements, that Dr. Lardner, at one time, said—"it was mechanically impossible for a steamship to cross the Atlantic." We were always skeptical about the truth of such an assertion, and we see that the learned gentleman, in his last edition of "The Steam Engine, Steam Navigation," &c., denies ever having made use of any such expression; nay, he says, that so far from ever having expressed himself in such language, he gave utterance to quite contrary opinions. This was at the meeting of the British Association at Bristol, England, in 1837. At that meeting the ques-

tion of Atlantic Steam Navigation was discussed, and the language he used was the following: "He was aware that since the question had arisen, it had been stated that his own opinion was adverse to it. This statement was totally wrong, but he did feel that great caution should be used in the adoption of the means of carrying the project into effect—almost all depended on the first attempt, for a failure would much retard the ultimate consummation of the project,—he considered the voyage practicable." This was the Report of his speech in the London Times, and for that, it had been asserted that he declared a voyage across the Atlantic, a mechanical impossibility. It is wonderful how falsehoods originate, and how far they travel. This one has travelled a long distance. We like to see such things set in their true light—truth is paramount to everything.

Circular Saws.

A correspondent from Smithfield, Johnston Co., N. C., writes to bear testimony to the editorial remarks made on page 90, to our correspondent R. W. W., of Florida. He says that in Smithfield, Messrs. Ballinger & McCullers have two steam mills in which they use circular saws of 48 and 52 inches, which cut the best lumber he ever saw, and they never vary from a straight line. They saw through logs of various thicknesses, and never get warm. These saws are run by Mr. Wm. M. Perkinson, a practical man, who keeps clear of all evils, and who, he has no doubt, can instruct others. He has no theory to aid others, but what he can give in thorough practice.

Mr. D. B. Paine, of Paine's Hollow, N. Y., writes us that the best means for keeping circular saws from heating, is to keep them in first rate order, and give them from one to two thousand revolutions per minute.

We have received a great number of communications on circular saws, in answer to our request; we are much obliged to our readers for their kindness, and sincerely thank them. There are a great variety of opinions, however, and we have not room to publish them all. We should have liked it if we had received more definite information upon thorough practical points, such as the best velocity of saws of various sizes, cutting various kinds of wood; the power applied to drive them, and some minute particulars of management. Above all countries in the world, the United States is most interested in running saws, for there can be no doubt of the fact, we believe, that there are 100 saws running in the United States for one in any other country of a like population.

We will have something more to say about saws next week.

Consumption of Anthracite Coal.

We learn by the Philadelphia Ledger that a gentleman of experience in the coal business has been in this city (New York) for a week pursuing the inquiry of the consumption of anthracite coal in this great mart—the centre of coal consumption in America. It appears that all the United States coasting steamships, including the Chagres lines, use anthracite. The Collins line take anthracite out and Welsh and bituminous back. The Cunarders take Cumberland out, and Welsh back. The Havre steamers use bituminous, but the Franklin took anthracite to try it on her last voyage. The Nicaragua steamship company, have contracted for supplies of Scuykill coal. C.H. Haswell, ex-U.S. Engineer puts down the number of ocean steamers, using anthracite, at 78; and 46 of these did not use it last year (1850). These consume 11 tons each daily on an average. The whole consumption of anthracite, is estimated by a gentleman intelligent in the coal business to be 822 tons per day, by Ocean steamers. All the river steamers except in the interior rivers, use anthracite. What a change; in 1838, all our steamers, here used wood, then we had no sea steamers. We are fast progressing to be mistress of the seas.

Gold of California.

The gold of California appears to be more plentiful than ever. The steamer Georgia arrived at this port on last Sabbath morning, bringing the astonishing amount of three million of dollars in gold dust.