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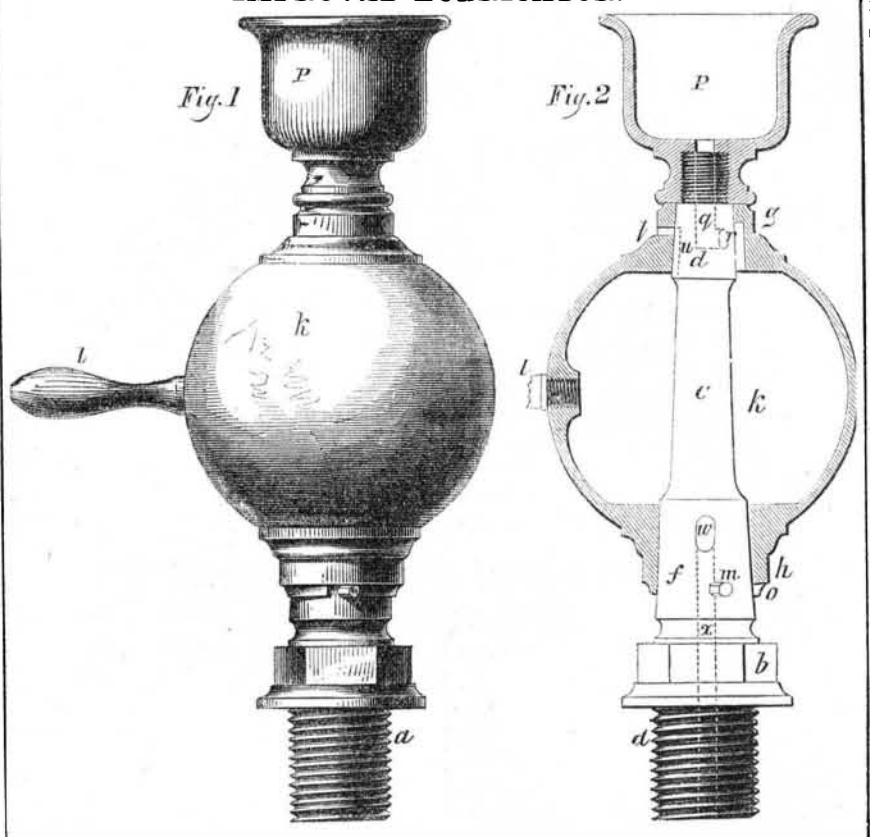
The Age of the World.

A question of great importance with divines and men of science at the present day, is that of the age of our planet, and the different changes which have taken place upon it, as related in Genesis. One class contend that the different acts of creation took place exactly as described in the first chapter of Genesis, in six solar days, and that all things were made out of nothing in that time. Another class believe that our planet was in existence for thousands of years prior to the first act recorded in Genesis, that it had undergone vast changes, and that it had been long in confusion, and was bereft of life, when the command went forth "Let there be light." This class also believe that the successive acts described in Genesis took place in six common days, furnishing the world with the exact orders of creation as there described. Another class believe that the successive acts of creation mentioned in Genesis, took place in the exact order there described, but that instead of the days there mentioned being solar days, they were *indefinite periods of time*—some of them of great length—perhaps sixty thousand years. This latter class embrace the greatest number of learned geologists and divines. In the last number of the *Bibliotheca Sacra*, the Rev. John O. Means, of East Medway, Mass., presents his views at great length on this subject, and takes the latter view of the question, namely: that the days mentioned in the first chapter of Genesis, if interpreted to mean *indefinite periods of time*, would reconcile both science and the Scriptures in every particular. He employs some strong arguments in favor of this view of the question. Thus, the sun, moon, and stars, are said to be created on the third day, therefore, the two previous days could not be one of our solar days, embracing one revolution of the earth on its axis in twenty-four hours, with the sun to rule the day and the moon to rule the night. This argument is incontrovertible. But what was the cause of light before the sun was created. He sees no difficulty in this. He says, "the material universe is full of light, ready to be worked at a word. Chemical action on a vaster scale than man can follow, is taking place every moment, and floods of light are poured forth. Combustion is attented with light as well as heat." "It may sound strange," he again says, "to say that the most intense light is to be found, not *on* the earth, but *in* it. The whole of the sun's rays which reach the earth, gathered to a focus, would not be so intensely light as the center of the globe. It seems pretty certain that within the crust of the earth, is a globe of fire, at least two thousand miles in diameter." This opinion costs neither him nor any man of science anything whether it be true or false, but he departs from reason and logic, by endeavoring to establish one hypothesis by setting up another. There are no positive proofs of the earth being a crusted ball of fire. We are not dependent on the sun for light, as he has clearly stated, but he does not seem to understand its true theory. It is produced by the vibrations of a subtile medium diffused throughout space. Our planet is self-luminous, but in a degree less so than the sun, for there is one glory of the sun, another of the moon, and another of the earth. Man's eyes are constructed to see objects only by a great quantity of intense light; but some beasts and fowls have their eyes constructed to range the forest and field by night as freely as man does during day, while during sunlight they can scarcely see at all. A tribe of Africans also—the Bosjesmen—remain in their caves during day, and search for their food during night. From habit, we presume, they have become nocturnal roamers—men-owls—thus showing that natural light belongs to our planet; the unceasing throbbings of its particles produce continual light; this was the way, no doubt, that light was produced in the early days of the earth. Hugh Miller brings forward some strong arguments in favor of the great age of our planet, and mentions a number of geological changes requiring tens of thousands of years to accomplish, which could not have taken place in the short period of six thousand years, as is believed by those who adhere to the solar six days interpretation of the Genesis narrative of the creation. Sir Charles Lyell believes that it must have taken 67,000 years to form the delta of the Mississippi, and 35,000 years for the Niagara river, to form its present channel from the Falls to Queenstown. Nearly all the eminent geologists believe this, and they consider they have facts to prove it, so strong, that they cannot be gainsayed. Mr. Means reasons strongly to prove that the meaning of the word day in the first chapter of Genesis is an indefinite period of time, and makes out a very strong case in favor of the world being perhaps a million years of age, according to the Mosaic account of creation.

IMPROVED LUBRICATOR.



The annexed figures represent an improvement in apparatus for lubricating the valves and pistons of steam engines, for which a patent was granted to Joshua Regester, on the 5th of last December.

Figure 1 is an outside elevation; and figure is a vertical section of figure 1. The same letters refer to like parts.

The nature of the invention consists in combining the reservoir for containing the oil, or lubricating fluid, with a central conical spindle or stem, by means of two sockets or bearings, one of which is at the upper, and the other at the lower part of the reservoir. In these sockets there are passages corresponding with other passages or vents in the central stem, and are opened and shut by moving the reservoir around the central stem. One of the upper passages or vents controls the admission of the oil into the reservoir, while at the same time the other passages of the upper socket permits the air to escape from the reservoir while the oil is being poured into it. And the passage in the lower part of the reservoir and central stem controls the admission of the oil into the place to be lubricated. These passages are so placed relatively to each other, that when the upper passages are open, the lower passages are closed, it is therefore impossible for both sets of passages to be open at one time, which precludes the possibility of the contents of the reservoir being forced out by the pressure of the steam, which would take place were both the top and bottom passages open at the same time.

The apparatus is secured by screwing the shank, *a*, into the steam chest, or other part of the engine or machine requiring internal lubrication, and to facilitate this purpose, the part, *b*, is made with flat sides, upon which the jaws of a wrench may take hold. In figure 2, C is the central stem, of which *d* is the upper, and *f* the lower conical bearing, these bearings fit accurately into their respective sockets, *g* and *h*, of the reservoir, *k*, which is moved around a central stem by means of the projecting handle, *l*, which is screwed into the reservoir, *k*. The extent of the motion of the reservoir necessary for opening and closing the several passages is regulated by the stud, *m*, and may be about one-quarter of a turn: a portion of the socket, *h*, is removed so as to present the two shoulders, *n* and *o*, to come against the stud, *m*, and thus limit the vibration of the reservoir, *k*; if on bringing the shoulders, in contact with the stud, *m*, the upper passages should be open, then will the lower passages be shut, but on reversing the position of the reservoir, and bringing the shoulder, *o*, into contact with the stud, *m*, then will the lower passages be opened and the upper passages be closed, in which case the oil or fluid within the reservoir will pass down through the central stem into the cavity of the machine requiring lubrication.

In filling the reservoir with the oil or lubricating fluid, it is first poured into the cup or funnel, *p*, from which the oil or fluid passes to the reservoir, *k*, by means of the vent or opening, *q*, which first passes centrally down through the stem till it meets the lateral vent or opening, *r*; when the opening, *r*, is opposite the slot, *s*, as shown in figure 8, the oil flows from the cup or funnel, *p*, into the reservoir, *k*. But when this receiving passage between the oil cups, *p*, and the reservoir, *k*, is open, there is also open the small vent, *t*, through the side of the socket, *g*, for the escape of the confined air, which would otherwise prevent the ingress of the oil or other fluid to the reservoir. This vent, *t*, is also brought into communication with the reservoir by means of the slot-form passage, *n*, cut out of the side of the upper bearing, *d*. The oil or fluid within the reservoir, *k*, passes off to the cavity of the machine requiring to be lubricated by passing down through a slot from a passage communicating with the opening, *w*, in the side of the lower bearing, *f*, and connecting with the central perforation, *x*, in the lower part of the stem, C.

The advantages of this improved lubricator over those which have separate cocks, and requiring separate manipulations, consist in its compactness of form, certainty of operation, and simplicity of movement, the mere revolving of the reservoir around the central stem answering all the purposes of opening and shutting the air cock, the receiving cock, and the discharging cock, and that, too, without error or mistake.

More information may be obtained by letter addressed to Clampitt & Regester, proprietors, No. 53 Holliday street, Baltimore, Md.

Saleratus in Bread.

In the N. Y. *Tribune* of the 24th ult., there is a sensible article by Dr. Alcott, of Auburn Dale, Mass., on the use of saleratus—in which he presents a number of facts to prove that the use of saleratus for domestic baking is dangerons to health and life, and that it has caused death in many instances. He mentions the case of a number of students at Williamstown College, Mass., who boarded in the house of an indigent female that used saleratus very freely in cooking, to make puddings, &c., light, which he believes led to the breaking out of a fearful disease among them, by which two died. Drs. Sabin and Smith, of that place, attributed this disease to the saleratus in their food. He also states, that in a family of about ten persons, it is not an uncommon thing, in many places in Massachusetts, to use about a pound of saleratus per month. He believes that sub-inflammation of the alimentary canal is produced by the free use of this alkali, both in children and adults, and that of the 300,000 children under ten years of age, who die annually in the United States, at least 100,000 might survive but from the effects of saleratus.

From his statements it appears to us that those whom he describes as using saleratus for cooking, to make light biscuits, puddings, &c., do not use acid with it, but simply the saleratus. Now this alkaline substance will not make light biscuit unless it is used with an acid or some kind. The soda and acid unite, setting the carbonic acid gas in the saleratus free, thus producing effervesence—not fermentation—which raises the dough and makes the bread spongy, leaving a bitter salt in the bread, (the tartrate of soda, if tartaric acid is used with the saleratus). There must be great danger indeed, in such a free and ignorant use of saleratus, without an acid, as a pound per month in any family. It is a common thing, however, in the country, to use sour milk with the saleratus, and there is not so much danger in its use when so combined, but, we must say, that saleratus, and those combinations of chemicals which merely produce effervesence, and not vinous fermentation, should not be used in cooking. Experience is the only way to tell what is good and what is evil to use as food or drink, and so far as our experience goes, and we have paid close attention to it for the past three years, we must conclude that yeast alone should be used for *raisings* in domestic cookery.

Wood Gas Controversy.

We perceive that Prof. C. G. Page, attorney for Dr. McConnel, publishes a long advertisement in the Washington *Sentinel*, relative to the claims of his client, and Lieut. Porter's for making gas from wood. An engraving with the specification of Lieut. Porter's patent will be found on page 37, this volume of Scientific American, where his full claims are presented and the whole truth of the matter set forth. All who wish proper information on this subject will find it there.

The Ericsson.

This ship, we perceive, is still reported to be getting in her new steam engines, which have been substituted for the hot-air ones. It is supposed that she will be ready for sea about the middle of next month, as 150 men are employed on her. The old proprietors, who were said to have asserted, "they were perfectly satisfied with the success of the hot-air engines," are the proprietors still, thus showing a liberal consistency in all their changes.

Locusts.

Dr. Gideon B. Smith, of Baltimore, says the seventeen year locusts will make their appearance this year along the eastern coast of Maryland, and to Carlisle, Pa., and also in Kanawha, Va., and Lexington, Ky. They can be found in all the above places, wherever trees, shrubbery, or forests grew in 1838, by digging down one or two feet. For more information on this subject, see Dr. Smith's illustrated description of this locust, on page 212, vol. 6 Scientific American.