

NEW YORK, SEPTEMBER 23, 1848.

**Progress and the Press.**

When the art of printing was discovered, it thrilled upon the ear of slumbering Europe as the voice of Divinity thrilled upon the ear of the dead, "awake thou that sleepest and arise." From that moment the march of freedom and knowledge has been steadily onwards. Old systems of false philosophy have crumbled away and new and true systems have been firmly established. Bigotry no more rears up her frowning battlements to oppose knowledge and overawe truth. Science is no longer confined to the college and cloister, and the useful arts are no more despised. War and eloquence still captivate and charm the proud and ignorant, but they are not now the exclusive objects of popular regard. The prosperity of nations is found now to depend on worth, industry and intelligence. By what chemical composition have these great reforms been brought about—by what mighty lever have "the valleys been exalted and the mountains brought low," to make a highway for knowledge among men? The Press—the Press. By it, the discoveries and investigations of the most noble and powerful minds have become public property, and the poor workman who can read, can now hold communion with the most gifted and learned.—And such is the nature of the human mind, that "as iron sharpeneth iron," so doth the thoughts of one man sharpen the mental powers of another. This leads to investigation, creates new desires, yea oftentimes opens up a hidden fountain of pure and dazzling genius. In all likelihood James Watt never would have directed his attention to improvements in the steam engine, if he had not been employed to repair a rude model. The wind that "bloweth where it listeth," affects not alone the atmosphere. The mighty ocean is disturbed and lake and pool that long lay still and motionless, are roused into action, sweetness and health. It is the same with the great mind of the world. The Press is the wind that stirreth up into healthful heavings its often languid and thoughtless heart—a hint, a word, a paragraph, often suggests ideas that are fraught with golden import. It has been remarked, that after some invention or discovery has been made public, others of great value have quickly followed after. Ether and chloroform pressed rapidly on the heels of one another. This is one of the great benefits of the Press—the importance of a newspaper—one or more in every department, each powerful and beneficial in its own sphere.

The field which we occupy is one of great importance to the progress of arts and sciences in our country, and widely is this now felt and acknowledged. Weekly from a hundred different sources is collected into our columns the peculiar matter which is sincerely designed to instruct and elevate. This requires much labor, care, and experience, and yet for all, mistakes and errors will be committed—perfection does not belong to man, but he must aim at nothing less, if he wishes to come near the mark. If he would progress he must have the mind of Newton "ever learning—yet to learn."

The Scientific American has been much indebted during the last year, to her many able and powerful correspondents, for the valuable and thoroughly practical character of their communications—this has constituted their crowning beauty, felt and acknowledged. We mention no names in praise, but we say this much, that there is not another paper in the world that can exhibit more original and useful correspondence. Our correspondents are still ready with their minds and pens to communicate, and will communicate with us for the benefit of science. Many new correspondents have come forward and tendered their services, which will appear terse, clear and instructive in our columns. From the

means at our command volume 4 of the Scientific American will be rendered the most useful and instructive repository of science and art ever published in America—our motto is, and always has been "progress."

**Opposition to Improvements.**

There was a time when the opposition to improvements was not confined to the humble and lowly, but was most bitterly and unrelentingly displayed by those who were the most enlightened. There seems to be something in the human mind that resists encroachments on established customs or usages, let those customs be as brutal and foolish as they may. So difficult is the task of converting even the most depraved and profligate, that it is compared to the "removing of a mountain." And truly when we reflect upon the determined opposition that has always been displayed against improvements in science and art, and reflect for a moment upon what improvements have been made, we will be ready to attribute an overruling hand guiding man to a nobler destiny and a higher civilization. The "times of ignorance" the Creator winked at, is a singular expression, but it can apply no longer to us, no excuse will suffice for us to be ignorant or to oppose improvements in our day and generation.—Nay more, he that does not form a spoke in the mighty wheel of universal improvement, is culpable in the highest degree. We regret to say that there are too many who are ignorantly or selfishly culpable to improvements, be those improvements in the shape of moral or inventive reform. If there springs up an invention to lighten labor and to triple produce, it is sure to meet with opposition, and by those from whom we might expect something better. We remember with pain the bitter and contemptuous language that was used towards the telegraph when the first line in our country was in the course of erection. We blush for our race when we reflect upon the see saw wise men that despised Robert Fulton and all other great inventors, when first their inventions were brought before the public.

The success of so many inventions, that were looked upon as chimeras of madmen, has made for a time inventions somewhat popular. Seizing upon this feeling, some have unworthily for selfish objects, proclaimed with trumpet voice some nostrum which has deceived and disgusted many with a patent seal. This is to be expected—there will always be tares among the wheat, but on that account no man should oppose improvement. There can be no doubt but that there are many pretended improvements that are quite the reverse of what they pretend to be, yet for all this, let every man reflect twice before he speaks once against any measure or machine that is brought forward to reform an abuse or improve a manufacture. Had the cities of Albany and Brooklyn exhibited a true spirit of improvement, they would long ago have been supplied with an abundance of water which would have saved more property from destruction at the recent fires in those cities, than would need to have been expended for the improvements in ten years. Yet for all this, we would not be surprised if those cities would still be "deaf to the voice of the charmer," common sense and common interest. Two steam engines of 50 horse power each, could supply Albany with water from the river, which could be forced to the top of the highest street, there filtered and made available for domestic use or fires.—Brooklyn could be supplied with water for fires by one engine of 60 horse power, or less.

The press is the great mouth-piece of modern improvement—a hint—a word universally disseminated does wonders in stirring up the public mind to objects of utility.

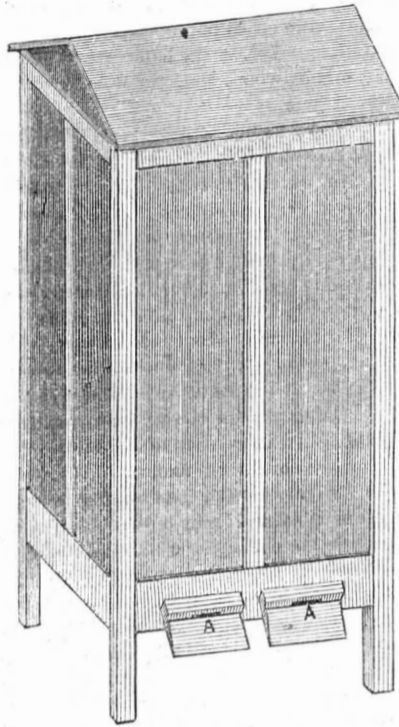
All projected improvements should be well discussed before they are acted upon, but far better that ten schemes should be tried and fail, than one good scheme should be overthrown by nothing but a spirit of opposition.

**Copper.**

One million three hundred and sixty two thousand pounds of Copper, have been shipped during the present season from Lake Superior.

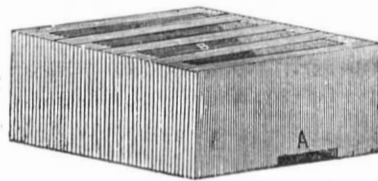
Spurgin's Palace Bee Hive.

FIG. 1.



This is an engraving of a new Bee Hive, invented by Jeremiah Spurgin, of Poplar Plains, Fleming County, Kentucky. It consists of an outer box or case and the boxes to contain the bees are placed inside, three or more on the top of one another and in direct communication. Figure 1, is the outer case or box. It has folding doors in front to be thrown open and closed at pleasure to protect the bees from the ravages of insects or inclement weather, and to allow a person to arrange and shift the boxes at pleasure. A A, is the entrance for the bees at the back of the palace at the lower part. The bottom of the box is some distance from the ground so that no slugs, &c. can find an entrance, as the bees light on A, and have to ascend an incline plane to get to their cells. This is shown in

FIG. 2.



This is the lower box in the palace. It is a square box fastened to the floor. A, is the entrance, and B is the incline board up which the bees have to travel to get to the cells. On the top of the box are nailed cross slats and there are three other boxes of the same form as this, with the exception of the incline board B, placed one above another. The incline board serves not only to keep out injurious insects, but serves to carry away impurities that are thrown down from the boxes above, thus tending in a simple manner to cleanliness and health. Two tier of boxes are arranged in the inside of the outer case with a gangway between them, and each box has a glass front with folding doors also, so as to inspect the cells, &c. The great evil complained of in the hives at present in use, is this. The bees have to breed and make their honey in the same box, and as the bees prefer to breed always in the lower combs and deposit their honey in the upper combs, there is no good way of taking out the honey, and cleaning the boxes without injury to the brood. All hives require a clean box in a few years, because if they are forced to breed in the same place, they leave a gummy lining behind and the new combs decrease in size, and therefore the bees reared therein become small, feeble, unable to work and finally die out, as they are a short lived insect. Mr. Spurgin's hive, for which he has taken measures to secure a patent, provides against this evil. By the arrangement of the boxes, he can remove the honey and clean the boxes at pleasure and with great ease, and he can either increase his cells or hive the bees at pleasure. By his palace bee hive, he has two families of bees, and after the first year, he will raise about 100 pounds of honey in the sea-

son—with very little trouble and almost for nothing. The plan is good, simple, and highly creditable to the inventor.

**Fair of the Franklin Institute.**

The eighteenth exhibition of the Franklin Institute in Philadelphia will open on the 17th of next month and close on the 28th, which will make the exhibition to be open two weeks instead of two days, as noticed by us in No. 51 of last volume. The old Franklin will no doubt have (as she always has had) an excellent exhibition this year.

The regulations will be substantially the same as those by which former exhibitions have been governed. The rule requiring that goods intended to be submitted to the examination of the judges, and to compete for a premium, shall not be deposited later than on the day previous to the opening, which was adopted for the first time at the last exhibition, was found productive of such convenience to the depositors and the managers, that it will be hereafter continued.

The Institute has purchased a steam engine of sufficient power to drive all the working models of machinery which may be presented; and no disappointment will in future result from the heretofore necessary dependence upon engines of faulty construction or inefficient power.

The exhibition rooms will be prepared for the reception of goods on Friday, the 13th of October.

No premium shall be awarded for an article that has received one at any former exhibition of the Institute.

Three grades of premiums will be awarded, styled, a first, a second, and a third premium. When an article shall be judged worthy of a first premium, in case the maker has received a first premium for a similar article at a former exhibition, a certificate may be awarded referring to the former award, and stating that the present is equal or superior in quality: unless the improvement over the first award may be judged worthy of another first premium.

Proof of origin must be furnished, if required, for every specimen offered for exhibition, and the strictest impartiality will be displayed.

The Telegraph Law Case, which was recently decided in favor of Mr. Morse, at Lexington, Ky., is to be carried up to the Supreme Court, which will of course confirm the decision of the Court below. It is idle to contend against Morse's claim. It is as just as the claim that any man has to his own legal property.

**To Inventors.**

Those who wish to have engravings of inventions inserted in the Scientific American during the three weeks of the great Fair of the American Institute, in this city, next month, are requested to forward their models or drawings to this office as soon as possible. Models may be sent by express; drawings by mail. During the continuance of the Fair we shall issue extra editions of our paper for circulation among the many thousand visitors who annually attend. Those who can should embrace this opportunity, for it is a rare one, of having their inventions illustrated and noticed. There is no doubt that a great many rights may in this way be disposed of. The Scientific American is about the only paper upon which people depend for information about mechanical inventions.

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