

RECENT AMERICAN PATENTS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week; the claims may be found in the official list:—

Lamp-wick Trimmer.—The object of this invention is to produce a simple and easily-operated instrument for trimming the wicks of kerosene and other lamps. It consists in arranging in a suitable guiding frame, a cutter or cutting blade, in such manner that it may be operated by pressing together, by the hand, the levers of the device. The cutter slides in a guide way, and is so arranged that its edge does not work against a fixed block or plate, but upon a fixed cutting blade, which greatly facilitates the cutting operation, as well as preserves the edge of the cutter for a much longer time than if it were arranged otherwise. The wick of the lamp is placed between the sliding cutter and fixed cutting blade, and the former is forced forward by the levers, when it will be found that an even cutting of the wick is produced, which causes the wick to burn with a more even flame and give a better light, than were a jagged cut made, which usually occurs when a pair of scissors are employed. This device will be found a very convenient and useful article, and the ease and accuracy with which it performs its work, recommend it to all persons using coal oil or other lamps. The inventor of the above device is Cyrus L. Topliff, of No. 37 Park Row, New York, who may be addressed for further information.

Turbine Water Wheel.—This invention relates to improvements on the Jonval turbine, in substituting the helix in place of a large iron case or wood firebag, and so constructing it as to reduce the friction of the water in passing through it to its minimum effect, the water leaving the buckets of the wheel with its full force or power. Also constructing the wheel in such a manner that the water, in passing through the buckets leaves them in its natural course and direction, giving to the wheel a strong and steady motion that is not easily affected by throwing on and off machinery, simplifying and adapting it to all mills where a first-class motion is wanted, and so arranging all its parts that there is no loss of power from continued use. The inventor of the above is J. E. Stevenson, 200 Broadway, New York. It was illustrated in No. 8, Vol. XII.

Pump for Oil and Other Wells.—This improvement in pumps is especially designed for deep wells, such as oil and other artesian wells, and it embraces several novel features, one of which is confining a piston in the cylinder of a pump by means of a detachable collar, which is fastened in place and unfastened automatically by means of the piston rod, without requiring the removal of the pump cylinder; another is inclosing the working cylinder within an annular valve chamber through which the liquid to be pumped is brought up into that part of the cylinder which is above the piston; another is a novel construction of piston, whereby its lower valve is relieved of the load of the column above it. Aaron Carver, of Little Falls, N. Y., is the inventor.

Metallic Journal and Stuffing Box.—This invention consists in a conical box with a follower in combination with a sectional or split lining and key, made tapering to correspond to the shape of the box and lining, and also adjustable by a set screw or other equivalent means, in such a manner that, by the action of the follower, the lining can be depressed and set up against the rod or shaft passing through the box, and by the key the pressure of the lining on said shaft or rod can be regulated and adjusted with the greatest ease and facility. This box is applicable to piston rods of steam engines or to rods of any other description, which have to pass air or steam tight through a stuffing box, such as valve rods, pump rods, etc. For further information as to shop, county or State rights, etc., address the inventor, H. L. Hopkins, San Francisco, Cal.

Distilling Apparatus.—This invention relates to an apparatus which is particularly intended for the manufacture of aniline, but which can be used with advantage for distilling a great many other materials or substances besides aniline. It consists in a series of hollow drums connected with each other by means of oblique pipes and secured to a shaft, one end of which is hollow and stationary, and connects with a vertical

branch pipe, in combination with or without a jacket or boiler, in such a manner that when said drums are partially filled with the liquid to be distilled, and the apparatus is rotated while being exposed to heat, the oblique pipes cause a violent agitation of the liquid to be distilled, and the distillation is materially facilitated, the gaseous products which escape from the liquid being allowed to pass off freely through the vertical branch pipe and the hollow end of the shaft. Carlos F. Frederici, 82 Wall street, is the inventor.

FARMERS' CLUB.

The Farmers' Club of the American Institute held its regular weekly meeting at its room at the Cooper Institute, on Tuesday afternoon, July 11, the President, N. C. Ely, Esq., in the chair.

THE BEST FRUIT GARDEN IN AMERICA.

Mr. Carpenter:—Mr. Chairman, I have just made a visit to the finest fruit garden in this country, if not in the world—that of Mr. Charles Downing, of Newburgh, in this State. It is of only seven acres in extent, but it contains the greatest variety of choice fruits that I know of anywhere. Mr. Downing is very moderate in his assertions, but he remarked that he has over one thousand varieties of apples and pears. He has also all the European and native varieties of raspberries; and among them all he regards Brinkel's Orange as the best. He has one variety of currant, single berries of which have measured, I am certain $2\frac{1}{2}$ inches, and I believe $2\frac{3}{4}$ inches in circumference.

Mr. Bartlett:—I would call Mr. Carpenter's attention to the fact, that this would make the berries nearly an inch—more than three-quarters of an inch—in diameter.

Mr. Carpenter:—Yes; I understand it.

THE BEST CURRANT.

Mr. Williams presented specimens of three varieties of currants—Prince Albert, Cherry and Versailles, and remarked that he brought them expressly for Mr. Robinson, to see the difference between the Cherry and the Versailles, as Mr. Robinson had remarked that he had both varieties and nobody could tell the difference between them.

Mr. Robinson, after trying the two, said that he was satisfied that both of his were one variety—the Versailles.

Mr. Carpenter, Mr. Williams, and other fruit growers, congratulated him on having the best known variety of currant; and the gentlemen present being invited to taste the three varieties, unanimously pronounced the Versailles to be the best.

THE WAY TO TRANSPLANT TREES LATE.

Mr. Carpenter gave the result of his experience in transplanting trees late in the season, and stated that that if the new wood and all the leaves are removed, trees will bear transplanting after the new wood has grown three or four inches.

OSAGE ORANGE HEDGES.

Solon Robinson read a communication from a correspondent of the Club in Missouri, saying that the osage orange, when planted for hedges, should not be cut back, but the plants should be braided together, bending them all one way the first year and the opposite the second year—thus alternating annually.

RED RASPBERRIES INDIGESTIBLE.

Mr. Bartlett:—Mr. Chairman, I should like to ask the Club if the red raspberry is generally indigestible. I find it in my own case different in this respect from all other fruit.

Solon Robinson:—It is the same in my case.

Mr. Carter:—The same with me; I cannot eat them.

Several other subjects were discussed, but the above were of the most interest.

The *Commercial and Financial Chronicle*, *Bankers' Gazette*, *Commercial Times*, *Railway Monitor* and *Insurance Journal* is the heading of a new weekly paper representing the industrial and commercial interests of the United States. Each number contains thirty-two pages, modeled after the celebrated London *Economist*. It is a valuable journal for bankers, merchants, underwriters, stock jobbers and commercial men, and, we are pleased to see, sound in its political economy. Terms, \$10 per annum. Published by William B. Dana & Co., No. 60 William street.

DESTRUCTION OF BARNUM'S MUSEUM

At noon on the 13th inst., that old and familiar place of amusement known as Barnum's Museum caught fire and was totally destroyed, with all its contents. The origin of the fire is not known, but it is said was first discovered about the boiler in the basement. A large number of visitors were in the building at the time but they all escaped without injury, as did also the several celebrities employed in the building. Of all the animals the learned seal and a bear alone escaped. The museum contained a great many rare minerals, coins and suits of ancient armor which were interesting to students and others; also innumerable trifles of all descriptions which can never be replaced.

Mr. Barnum lost \$300,000, and was insured for \$60,000, in several companies, and we doubt not that through his well known energy and sagacity a new Museum will arise from the ashes of the old one wherein the giants may stalk as of old and the moral drama flourish exceedingly.

Several other buildings were also consumed with the Museum and at one time the fire threatened to spread over a large area.

MISCELLANEOUS SUMMARY.

TURPENTINE.—Preparations are making, says the Wilmington (N. C.) *Herald*, in the different parts of the adjoining country for the manufacture of turpentine as rapidly as circumstances will admit. Numbers in the upper counties from this have been engaged for some time in rebuilding the works destroyed during the war, while many others are about commencing the work. The work will go on in good earnest when the farmers can leave their growing crops, which will be in a few weeks.

A GANG of burglars, some of them from London and others from Liverpool, have been arrested in Birmingham. They had a good stock of tools, including a newly-invented machine for destroying the locks of safes. The article is composed of several pieces of steel so securely joined, and fitted with such powerful penetrating blades of steel, that it is thought capable of gradually forcing any number of safes.

WATER-PROOF PAPER.—A fluid for rendering paper water-proof may be made by dissolving $1\frac{3}{4}$ ounces of pure tallow soap in water, then adding a solution of alum in quantity sufficient for the complete decomposition of the soap.—This fluid ought to be mixed with the paper pulp, which may be worked up in the usual manner, but needs no glueing.—*American Druggist*.

THE NATION is the title of a new weekly political and literary journal, the first number of which has made its appearance. It has a very solid appearance, and promises to take high rank with those who enjoy sound and able discussion of those great events in the political world which are now passing in review. It is published weekly by J. H. Richards, No. 130 Nassau street. Terms, \$3 per annum.

METHYLATED spirits or wood naphtha is not yet manufactured to a great extent in this country. It has most of the properties of alcohol, and for certain purposes it is a complete substitute.

COATING SHIPS' BOTTOMS.—Dr. H. De Briou, England, proposes a compound of 250 parts vulcanized India-rubber and 750 mineral pitch, to be applied hot, and like tar, for the coating of ships' bottoms.

THE Wallingford, Conn., community report the gathering this season of 850 bushels of strawberries from five acres of plants, being an average of 170 bushels per acre.

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and enclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

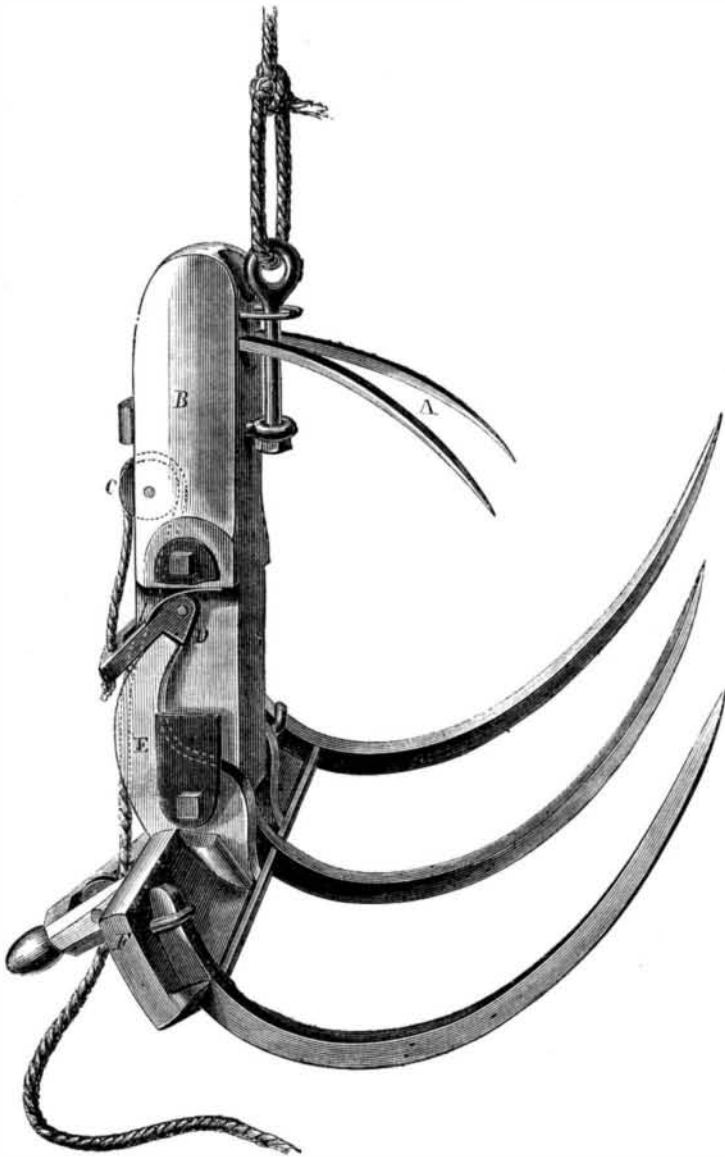
INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a *bona-fide* acknowledgement of our reception of their funds.

Improved Hay Fork.

Quite recently, in a trip through the country, we saw a neat farmhouse, with well-appointed buildings sleek-looking stock, and well-kept fences, but as an offset to this picture of prosperity, there was not a sign of a machine about the premises. Thrift and economy had done by hard work what we have described, but the farmer was worn down with toil and exposure. We could not help thinking that by the aid of modern machinery he might have spared himself some labor and enjoyed his possessions all the better therefor.

It is hard work to pitch hay on to a cart, and from it to the mow, and a person engaged in this occupation does a tremendous amount of labor in a day.

**WELLS'S HAY FORK.**

Since machinery has been invented for this purpose it should be more generally used.

Horse hayforks are re-garded with great favor by enterprising farmers, and we here illustrate a new one which has lately been invented. The chief feature of this fork is the certainty with which it retains the load after it is taken on. Persons who have used these tools know that of ten times when a large quantity is taken at once, the loose portions topple off and get scattered about, making a great deal of extra labor to collect it again. With this fork no such trouble occurs, as it is provided with two projecting tines, A, on the main beam, B, which are stationary, and place the load firmly, so that there is no escape and no waste, at the same time these tines do not interfere with discharging the load. This latter duty is performed by pulling the line as usual. The rope runs over the pulley, C, as shown by the dotted lines, and the end is fastened on the latch, D; by raising this catch the arm, E, which bears against the shoulder of the catch, is displaced and the fork falls, discharging its load. The tines of the fork itself are well hung to the shank, F, being set so that they cannot spring sidewise and so that they flare at their outer ends, thus affording a good support to the load.

These are the principal features of this fork, and we regard it as a very good one of its class. It was patented through the Scientific American Patent Agency on Oct. 11, 1864, by J. L. Wells, of Ames, N. Y. Address him at that place for further information.

To Etch on Glass.

Etching with hydrofluoric acid on plate glass is practiced now to a very considerable extent, the French manufacturers especially producing splendid ornamental effects by the process. The drawings to be imitated or etched on the glass are first made on stone or plate and then printed on unsized paper with fan ink consisting principally of a solution of asphaltum in oil of turpentine made with the aid of heat, to which some substance is added which shows a more or less crystalline structure on cooling, as stearic acid, spermaceti, naphthaline, paraffine. This mixture is strained and rapidly cooled with constant stirring; it is the only kind of coating which thoroughly resists the action of the corrosive acid. The printed paper is laid flat with the blank side on water, to which from 10 to 25 per cent of muriatic acid has been added, and as soon as the lines show signs of softening the negative printing is transferred to the glass by a slight pressure and when the paper is then removed the picture will adhere to the glass, and this is afterwards exposed to the fluorine vapors in leaden troughs.

Druggists' Circular.

[This acid is very dangerous to handle and should be used with great care. The fumes of it must not be inhaled and it makes a sore on the flesh where it touches.—Eds.]

A First-rate Paper.

With the next issue (July 1st) the New York "SCIENTIFIC AMERICAN" commences its thirteenth semi-annual volume (new series), and we avail ourselves of this opportunity of saying that if there is any mechanic, scientific man or manufacturer who is not in weekly receipt of this most excellent periodical, he does not study his own interests. It is by far the ablest of its cotemporaries in its peculiar department, and deserves the widest possible circulation. Its proprietors, Munn & Co., 37 Park Row, New York city, are the sponsors of about one-third of all the patents issued in this country, and their judgment in matters of this kind adds greatly to the value of their publication. Terms \$3 per annum, in advance.—*Chicago Journal.*

"THE PIPE OF PEACE."

Sir Walter Raleigh is said to have been quietly smoking in his study long years ago, when his servant, alarmed at the spectacle, and supposing his master on fire, immediately drenched him with the contents of a jug near at hand.

This injudicious attack, like all other intemperate onslaughts on familiar habits, utterly failed of its effect, and Sir Walter continued to smoke placidly, as do all his descendants to this day.

Very great improvements have been made of late in tobacco pipes. Rosewood, laurel and brier wood

have been employed as material for the bowls and stems, in the place of fragile clay.

The pipe herewith illustrated is convenient and handsome; it has also novel features, which will, no doubt, make it popular. In detail it is constructed as follows:—

The bowl is formed with a metallic reservoir, A, at the bottom, which has a joint, B, at the side. In this joint there is an elbow, C, on which the stem is fixed. The stem itself is provided with an ingenious device, shown in the portion broken out. This consists in a scroll, D, set in the tube so that the smoke must follow the passage, E, to the top before it reaches the mouth. By that time the smoke is cooled, and deprived in a measure of the heavier portions which may have been drawn through the



tube in smoking. Besides, smoke so cooled is more agreeable to the taste than at a higher temperature. The reservoir at the bottom collects all moisture which, from obvious causes, settles in the passages, and in common pipes clogs up the bowl and stem, rendering them foul in a short time. For cleaning, this pipe is especially convenient, it being only necessary to remove the scroll, E, and wash it out. The reservoir is also capable of being unscrewed from the bowl and purified. The elbow, C, enables the smoker to turn the bowl of the pipe at any angle with the stem, and thus avoid smoking in his own eyes or under the noses of other people. The elbow may be of one piece with the bowl, or separate, and of any material. The socket may be either horizontal or pointing upward.

This pipe was patented through the Scientific American Patent Agency on May 22, 1865, by F. Doellbor. For further information address him at No. 405 North Fourth street, Philadelphia.

THE department of coins and medals in the British Museum has acquired 2,567 examples during the past year. Of these 1,350 were Greek, including 5 specimens made of glass; 512 are Roman; 474 modern or mediæval; 295 of the Roman coins are Imperial, gold, valued at £3,200. The mint of the United States has presented a two-cent piece of 1864.