

THE ADVANTAGES OF A STOVE-PIPE HAT.—Every reformer and most of our writers have something to say condemnatory of the stiff high crowned hat and advocate the soft felt hat as a substitute. While the Hon. Charles Sumner was recently inspecting a sleeping car on a Michigan railroad the train suddenly started. This threw him forward and he struck the ground with his hat, damaging that article considerably, and inflicting a slight injury on his head and face. Had Mr. Sumner worn a felt hat, his head instead of its covering would have sustained serious injury. The stove-pipe hat will undoubtedly have one distinguished advocate at least after this.

TEXTILE FROM HOP VINES.—Another discovery in the field of textile material, is that of a Belgian, who has shown that a second, most valuable, and heretofore useless product, can be furnished by the hop vine. After the hop blossoms have been gathered, the stems are steeped like hemp; when this operation has been completed the stalks are dried, beaten with a wooden beetle, and then the threads come off easily. After carding and working in the ordinary way, a very strong cloth is obtained. The thickest stalks also yield the material for several kinds of rope.

WHERE THE MONEY GOES.—A letter from a lady in Paris, just received, says: "Never will so many Americans be in Paris at one moment again;" and she added, "what a deal of money they leave. I know some New York and Western ladies who have bought such quantities of laces. Every lady who comes to Paris must buy a real black lace shawl and silks. One lady bought twenty thousand dollars' worth of European luxuries, mostly for presents to friends, and one gentleman, on his way to his Western home, takes fifteen trunks filled with laces, silks, etc."

THE SPECTRUM TEST.—So delicate is the spectrum test in determining the presence of certain metals that it is possible to recognize in this way the 1-60,000th part of a grain of potassa or baryta; the 1-1,000,000th of a grain of lime or strontia; the 1-60,000,000th of a grain of lithic, and the 1-100,000,000th of a grain of soda. Dr. Letheby, a distinguished London chemist, has detected by this means the presence of blood in the stains of linen which had been laid away for seventeen years.

HOW TO PRESERVE EGGS.—In 1791, Wm. Jayne, of Sheffield, England, obtained a patent upon the following method which he averred would preserve eggs in a good and fresh condition for two years or more:—Keep the eggs in a compound made of 1 bushel quick lime, 32 oz. salt, 8 oz. cream of tartar, with enough water to form a mixture so that an egg will swim with its top just above the liquid. If any of our readers should test this simple method we should be glad to hear the result.

FOR POLISHING STEEL.—A German engineer states that oxide of chromium is the best substance for polishing steel. The article can easily be prepared by heating bi-chromate of potash to redness. It is also used for painting on porcelain. One equivalent of chromic acid is reduced to oxide of chromium, and on well washing the residue of the ignition neutral chromate of potash is washed away and the oxide is left behind.

COLORING WOOLEN YARN.—An agricultural exchange asserts that yarn, plain or mixed, can be colored a firm blue, even superior to that attained with indigo, by mixing common purslane (*portulaca oleracea*) macerated fine, and boiled for some hours with logwood chips, in the proportion of a half bushel of the former and quarter of a pound of the latter. Two ounces of alum is used as a mordant for every pound of wool.

THE AGE OF INVENTION.—It appears from the records of the Patent Office, that in 1864 the number of applications for patents was 6000; in the following year the number increased full fifty per cent; in 1866, 15,000 applications were filed, and this year will probably increase the number to 25,000. The number of caveats filed last year was twenty-seven hundred, and this year there will be upwards of four thousand.

HOW TO REMOVE FOUL AIR FROM WELLS.—Ebenezer Robinson, of Philadelphia, Pa., suggested, in 1793, a very quick and simple method of removing foul air from wells, cesspools, etc. He says he found the plan to succeed even where the air was so bad that neither flame nor life could be supported. His plan was to lower a leathern hose pipe into the well, and by means of a large bellows, inject fresh air.

THE MUD CROP OF PARIS. Among the many economies of municipal administration in Paris is the sale of the yearly "mud crop." In 1823 this yielded only \$15,000. It now brings \$120,000, and when left for some time in rotting tanks is sold for manure, at the increased valuation of \$600,000. If we could but make the mud crop of our American cities equally profitable!

MULTUM IN PARVO.—A very neat and convenient article in the shape of a pen holder has been introduced to the public by the Morse Eraser Company, of Philadelphia. It combines with a pen holder of ordinary shape and size, a pencil sharpener, eraser, and burnisher. Add to it a penknife, which can be easily done, and the article will be complete.

THE NEW PLANET recently discovered by Prof. Peters, of Hamilton College, N. Y., and at very nearly the same time by Prof. Tietjen, of Berlin, makes up the full number of these heavenly bodies now known to one hundred. The name of Urdina has been given to the stranger.

A PARTY of capitalists recently visited Marsh's Railroad, (an illustrated description of which was published in this paper before the enterprise was commenced), which is being built on the summit of Mount Washington, and a new company has been organized, fixing the capital at \$200,000. The Giant's Grove is being graded previous to erecting a large hotel on it, and the turnpike has been completed from that point to the railroad at the foot of Mount Washington. A little over a mile of the railroad has been constructed, and it is expected the balance will be finished next year.

THE MARITIME INTERNATIONAL EXHIBITION, which is to be held next year at Havre, promises to be interesting, as it will certainly be in many circumstances novel. The idea of it was suggested by the circumstance that the marine productions and objects connected with them have necessarily been only partially represented in the Champ de Mars. There are to be three classes of subjects: navigation and life-saving apparatus; various articles of commerce and manufactures; and matters connected with fishing and pisciculture. The whole is to be under the very highest patronage.

The establishment of a National School of Mines is to be proposed in Congress at the coming session. It is estimated that \$10,000,000 per annum may be saved by the adoption of a better system in the working of our ores.

We regret to hear of the death of Prof. McGauley, connected with the *Scientific Review*, the organ of the Inventors' Institute, London. Professor McGauley resided for a time in Canada, and his friends there will regret to learn of his death.

It is said that the only fruit which grows in every climate is the strawberry. It is the only fruit which somewhere on the earth is picked every day the year round.

THE NOVEMBER METEORS.

According to programme, the expected meteoric display came off early in the morning of the 14th inst., and so far as numbers are concerned, Prof. Loomis, of Yale College, pronounced the exhibition more remarkable than the one our European neighbors were favored with one year ago, and but little inferior to that seen in the United States in 1833. Reasoning from analogy in the case of the shower thirty-four years ago,—as we mentioned in our last issue,—astronomers confidently predicted this meteoric exhibition, and arrangements were made in most of our observatories for making systematic records of the shower. During the greater part of the night the task of mapping down on star charts the course and exact time of appearance of solitary meteors, was an easy one; but towards morning their appearance became so frequent that the observers ceased their efforts to time and map them, and only counted. The authority above quoted states that at New Haven the shower reached its greatest magnitude at 4.30 A. M., over five hundred being then counted by one observer in an hour. And as one individual can watch but about one-sixth of the hemisphere, according to the usual method of computation, 3000, at least, were at this time visible in the whole heavens, and without doubt, twice that number actually came within the field of vision, but were eclipsed by the superior light of the full moon. From all parts of the country, have come reports of the beauty and brilliancy of the shower. Even the inhabitants of our Pacific States witnessed it, although, of course, it reached its full grandeur at an hour much earlier than with us. The display was not visible in England, or on the Continent.

The time when the shower attained its greatest brilliancy was, in this section, two hours later than that given by European observers of last year, and next year the display, if there be any, will not begin until ten o'clock A. M., Washington time, and will, therefore, be seen only in the Pacific Ocean.

MANUFACTURING, MINING, AND RAILROAD ITEMS.

The Foxdale mine in the Isle of Man, is already one of the richest lead and silver mines in Great Britain; but its value has been very much increased by the discovery of an ore hitherto unknown to exist in that country. The name of the ore is "Fahlerz" (tetrahydrate). It yields an immense amount of silver.

A steamer has left Havre, having on board a large number of French locomotives, consigned to Russia. The report that the Crenset works had received an order for eighty locomotives—a report which has been freely published by our exchanges—it appears is a little premature, the affair not as yet being definitely concluded. The pecuniary assistance proposed to be afforded by the Russian government this year, to the work of railway construction in that empire, is about \$15,000,000.

White chrome ore is found in Hanover, near Gettysburg, Pa., which yields about 55 per cent of iron. This ore is of the same kind as is now shipped from Havre de Grace, to Sheffield Eng., to be used in the cutlery establishment of that place.

The first sleigh-bell ever made in this country was manufactured at Chatham, Conn., in 1780, and that town still retains a monopoly of this business.

In the city of Dresden, albumenized paper is manufactured at the rate of upwards of 6,000 reams per annum, a quantity that would suffice to print more than 120,000,000 cartes de visite. The whites of 2,000,000 eggs are annually consumed in preparing this paper the yolks of which, are used by tanners for preparing the finer kinds of leather. After preparation, the paper is carefully assorted, and from ten to fifteen per cent is rejected for photographic purposes but is used by Dresden printers for color printing.

The Inventors Manufacturing company established one year at Terryville, Conn., operate the largest shears and scissors factory in the country, and turned out last year about 60,000 dozen, worth from \$600,000 to \$700,000.

The "Lake Shore" railway lines between Buffalo, Cleveland and Toledo, are about to consolidate with the Michigan Southern on the one hand and with the New York Central on the other, thus placing the whole route under one board of management. If effected, this combination will represent some \$150,000,000 of railroad capital.

At the head of Thunder Bay, on Lake Superior, two veins of native silver have been discovered; one seventeen the other eighteen feet in width, and one of them extending some three or four miles.

Jasper is now procured to almost any required extent at St. Gervaise, in Savoy. One quarry has a depth of 60 feet and a surface of at least 24,000 square yards.

The exports of iron and steel of British manufacture from the United Kingdom has undergone a wonderful expansion of late years. In 1847 these exports amounted to 550,000 tons; in ten years this increased to 1,500,000 tons. Comparing 1866 with 1847 there is an increase of no less than 266.38 per cent. Last year appears to have been the best twelve months on record in valuation of exports.

The Spanish journals state that the small-arms manufactory at Placentia is working night and day, executing an order given by the French Government for muskets of the new pattern. A French agent is on the spot, and has offered a premium of 30 reals for each Chassepot delivered before the time stipulated.

The failure of the great house of Decoquville, whose iron founderies are to be sold by public auction on the 30th inst., is traced to the fatal effect of the Paris Exposition on French trade.

Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the more prominent home and foreign patents.

SELF-SETTING GAME TRAP.—Alfred Wilkin, McConnellsville, Ohio.—This invention has for its object to furnish an improved trap which shall be durable, cleanly, entirely free from the odor of animals, requiring little care to keep it in working order and capable of destroying large numbers of animals at one setting.

BOLT FASTENING.—V. Lapham, El Paso, Ill.—This invention has for its object to furnish an improved fastening for thill coupling bolts, clevis bolts, and other pivoting bolts which will hold the bolt securely in place and which can at the same time be easily and quickly attached and detached.

LAMP.—James Lee, New York city.—This invention has for its object to furnish an improved lamp so constructed and arranged as to guard against explosion by preventing the undue heating of the upper part of the oil reservoir and at the same time to guard against the lamp's being broken should it accidentally fall.

HAY RAKE AND TEDDER.—J. M. Law, Portlandville, N. Y.—This invention has for its object to furnish an improved attachment for hay rakes by means of which hay may be shaken out and stirred up or turned quickly, conveniently and thoroughly.

LEVELING ATTACHMENT FOR STEAM HARVESTERS, ETC.—Benjamin F. Cook, Olema, Cal.—This invention relates to a new and improved leveling attachment to be applied to steam harvesters and other agricultural implements which are mounted on wheels for the purpose of keeping the main frame in a horizontal position in its transverse section when the machine is passing over inclined ground. The invention consists in interposing between the back axle of the machine and the bolster above a wheel having its rim beveled or made inclined and connected with a winlass or capstan in such a manner that the wheel may be turned with facility and the main frame of the machine brought to or retained in a horizontal position when the wheels on which the machine is mounted are passing over inclined surfaces.

HOISTING APPARATUS.—A. F. Crosman, Steamer *Ossipee*, North Pacific Squadron, U. S. Navy.—This invention is designed to facilitate the hoisting of small boats at the sides of ships and other vessels. The invention consists in a novel arrangement of the davit tackles whereby the tackle of both davits are operated and the boat hoisted or lowered by the manipulation of a single rope. The invention further consists in a novel means for releasing simultaneously both ends of the boat from the hooks of the tackle blocks when the boat is lowered so as to reach the water and thereby prevent the capsizing of the boat a contingency of not unfrequent occurrence when the water is rough.

DRYING ATTACHMENT FOR PAPER-RULING MACHINES.—R. J. Groshans, Buffalo, N. Y.—This invention consists in applying to paper-ruling machines a revolving fan in such a manner that the ink on the freshly ruled paper will be rapidly dried and the paper under the influence of the blast generated by the revolving fan be made to drop evenly into the box or receptacle prepared to receive it.

COMPOSITOR'S COPY HOLDER.—P. A. La France, Elmira, N. Y.—This invention relates to a new device for holding the manuscripts on printers' type cases and consists in the arrangement and construction of a platform which rests on suitable supports provided for that purpose on the type case and which can be easily moved laterally on the said type case to enable the compositor to reach all the types.

MACHINE FOR UPSETTING, CUTTING AND PUNCHING IRON.—J. J. Rose, Elmwood, Ill.—This invention has for its object to improve the construction of the machine patented by the same invention Aug. 1, 1853, and numbered 49,158.

BELT FASTENING.—David Wigger, New York city.—This invention relates to a new belt fastener which is so arranged as to be easily opened, and which, when closed, can be securely locked, and which is of great strength and durability.

FISHHOOK.—A. I. Lenhart, New Brunswick, N. J.—This invention relates to a new and improved fishhook of that class which are provided with a spring, a catch or fastening, and one or more supplemental hooks, which, when the fish seizes the bait, are released and spring so as to penetrate the fish and secure it. The invention consists in a novel construction of the device, or the arrangement of the parts, whereby the capture of the fish, when the latter nibbles or seizes the bait, is rendered almost certain.

BLEACHING PAPER STOCK.—S. T. Merrill, Beloit, Wis.—This invention has for its object the bleaching of paper stock in a more economical manner than hitherto, and consists in subjecting the stock to the action of chlorine gas while the former is undergoing the process of comminution in what is known as the "rag engine," or the stock agitated in a close vessel.

RAILWAY TRAVELING HOOK.—Wm. R. Oatley, Rochester, N. Y.—This invention relates to a new and improved hook by which travelers in railway cars may suspend any hand luggage from the hat racks over the seats. The invention consists in connecting two hooks together by a swivel joint, one hook being of sufficient dimensions to catch over a rail of the rack, and the other hook of such size that a strap, string, or cord may be readily suspended or fitted upon it.

COMBINED CHIMNEY AND VENTILATOR.—A. S. Whittemore, Willimantic, Conn.—This invention consists in combining a chimney or fire with a ventilator in such a manner that the compartments of a building may be thoroughly ventilated and the chimney or fire at the same time rendered perfectly fire proof.

PAPER RULING MACHINE.—Edmund A. Warren, Brooklyn, N. Y.—This invention relates to a new and improved machine for ruling paper, and it consists of a rotating cylinder provided with nippers to grasp and hold the sheets of paper to be ruled, and also provided with adjustable cams, the above parts being used in connection with a pen beam, and all constructed and arranged so as to operate in a perfect manner.

MOWER AND REAPER.—A. W. Tucker, Waxahachie, Texas.—This invention relates to a new mower and reaper, which is made adjustable so that the cutting apparatus can be set to a higher or lower level, and so that it can be thrown out of gear at pleasure; an endless apron is arranged directly in rear of the cutting apparatus, to receive the cut straw or grass, which can be discharged from the apron either in continuous succession or in swaths at suitable intervals.

PUNCHING MACHINE.—Morris Selferth, Morristown, N. J.—This invention relates to a new punching machine, for perforating plates or for stamping or notching the same, and consists in the use of an automatic cleaner, by which the plate, after a hole or depression has been punched, is lifted off the lower stationary punch, so that it can be easily adjusted upon the same, for the punching of the next hole or mark, while the die is moved up by the cam of the driving shaft.

HOUSE VENTILATOR.—Robert Boyd, Evansville, Ind.—This invention relates to an improved method of ventilating dwelling houses, halls, hospitals, and public buildings, whereby the fresh air from the outside may be conveyed inside, and the vitiated or foul air escape therefrom.