

ing lip to be let into the inside of the jamb, and held by screws, which, when the door is closed, are covered by its edge. On the back of the catch, is also another projection, through which one or more screws pass into the casing. These screws resist the shock of the spring bolt of the lock, and those on the inside of the jamb the strain upon the door itself, in a direction at right angles to their length. Thus it will be seen that the catch is secure against all chance of accidental displacement.

It was patented through the Scientific American Patent Agency May 21, 1867, by George W. Da Cunha, who may be addressed relative thereto at 311 West 36th street, New York City.

"Porter Spare that Trunk."

The Philadelphia *Ledger* says—and we know it is so—for we went traveling once, that at this season of the year the above is a daily and hourly request at the stations on all great lines of railway; but it is by far too often a vain request for down goes the trunk with a crash—the lock is broken and the contents of the unfortunate receptacle are scattered over the ground to the dismay of the owner and alarm of other travelers around, who are left to anticipate a similar mishap to their own baggage. If the sufferer be a lady, and, as happens every now and then, without a male escort, she is obliged to look helplessly at her dresses and articles of toilette rolled in the dust and dirt; and if gathered up and stowed away in the trunk by some good-natured person near, they are in a sorry plight. The porter or baggage man in place of apologizing for the mischief which he has carelessly done, will most likely be heard to growl and mutter words of insolence and defiance, as if he had only exercised one of his reserved rights. Baggage-masters and their assistants are often equally as reckless as the surly porter, of a decent regard for the property entrusted to their charge, as shown in the way in which they toss our trunks and other luggage, or throw them from one part of the car to another. Ladies are not the only sufferers by this abominable practice. It may be alleged that these cases are exceptional, and of rare occurrence. Most travelers will tell us, in reply, they are incidents witnessed on every long line of railroad, and especially in the summer months, when so many leave their homes in pursuit of health and pleasure. Very pleasant indeed to have one's trunk smashed and clothes spoiled! There seems to be a fixed determination, on the part of porters who carry luggage to steamboats and depots, and from them to hotels, to test the strength of trunks, and as far as in their power, snap the iron bands, to break off straps, which they seize held in place of the handles, and to wrench hasps and bolts of locks from their fastenings. There is an apparent trial to ascertain which has the greatest power of resistance—the trunk, or the pavement, or the platform, when the first is thrown down as if it were in the performance of some gymnastic feat for a wager. Is it not time that there should be a class of civilized trunk carriers—of men who understand that they should be careful of goods intrusted to their care.

New Base for Artificial Teeth.

Dr. G. F. J. Colburn, of Newark, N. J., has invented a substitute for rubber in dentistry, which promises to be of much value to the profession. It is in reality a cement of which the mineral asbestos is one of the ingredients. Asbestos is a very peculiar substance. It is exceedingly light, and so very fibrous in its nature that it may be spun and woven like cloth, in which condition it resists fire, water, and many of the acids with complete success. Taking advantage of these natural qualities Dr. Colburn has, by long study, discovered additional substances, which, when united, form an artificial base that possesses remarkable toughness, adherence, strength and lightness. The ease and freedom with which it can be molded is a strong recommendation. It can be readily applied to gold, platinum and other plates. We have seen some full sets of teeth on aluminum plates that were truly beautiful. This new base contains no ingredients injurious to the health of the mouth or system. It is not affected by acid secretions, is free from all taste, and is inodorous. We hope that its merits will be thoroughly tested. Patents have been allowed.

Agricultural.

There are 23 applicants for the position of Commissioner of Agriculture, made vacant by the death of the Hon. I. Newton, viz.: Norton S. Townshend of Ohio; John A. Warder of Cincinnati; Thomas Brown of Ohio; Col. Capron of Illinois; the Hon. John B. Clark of Missouri; the Hon. James Birney of Michigan; the Hon. L. Chandler Ball of New York; F. M. Blair of Washington, D. C.; William H. Ludlow of New York; Oliver H. Kelly of Minnesota; A. S. Paddock of Nebraska; the Hon. James R. Hubbell of Ohio; Isaac Newton, jr., of Pennsylvania; Thomas P. Robb and Solsom Dorsett of Illinois; E. C. Wilson of Pennsylvania; R. J. Powell, John H. Klippart of Ohio; the Hon. Frederick Holbrook of Vermont; James S. Grinnell of Massachusetts; William H. Russell of Washington; the Hon. W. T. Lemosy of Virginia, and the Hon. E. H. Hyde of Connecticut.

BUSINESS AND MANUFACTURING ITEMS.

The capital invested in agriculture in England amounts to £3,311,000,000, returning a profit of 13 per cent.; the capital invested in manufactures is £213,000,000, and the annual profit is 120 per cent.

The French ladies spend 8,000,000 francs per year for corsets, 15,000,000 for gloves, and 10,000,000 for bonnets. False diamonds cost them 1,800,000 francs, false teeth 1,500,000, glass eyes 84,000, masquerade dresses 730,000, perfumery and cosmetics 22,000,000, fans 5,000,000, artificial flowers 28,000,000.

The directors of a railroad in New Jersey are said to have offered to parties who will build on the line of their road, a free pass over it from three to five years.

Since the year 1861, there have been sunk in the United States 7,330 oil wells, yielding a total product of about 11,640,670 barrels of crude petroleum.

The universal belief in abundant crops this year, has brought a class of speculators into the field who have bought up all the grain bags in market, much to the disgust of the farmers. The market for reapers and mowers has also become quite active in preparation for reaping the new crop.

The works of the Boston Belting Company, at Roxbury, Mass., the largest establishment of the kind in the country, covers five acres of land and constantly employ 150 hands. Packing for machinery, engine hose, and tubing, are among its products. The consumption of stock at the present dull season reaches \$75,000 per month.

Watch chains are now made by machinery by the pioneer firm in this line in New England—Sackett, Davis & Co., of R. I. The machine is their own invention, and is pronounced one of the most ingenious and elaborate pieces of work ever devised. By means of it bar gold is transformed rapidly and without noise into the most delicate, or substantial fob and vest patterns of chains.

In the exportation of coal, Erie, Pa., ranks second in the United States. Over 250,000 tons was shipped from this port during the year ending Jan 1st, 1867. The bituminous coal is taken to ports on the upper lakes; principally to Chicago. The return freights are made up from Lake Superior copper.

The projected railroad from Atlanta, Ga., to Decatur, Ala., when completed, will effect a saving of more than 100 miles in the distance traveled between Memphis and Charleston.

The Chicago tunnel cleared forty-six thousand dollars for the contractors. The project of a great park at Chicago was defeated at the recent election.

Sargent & Co., of New Haven, have the largest hardware manufactory in the country, employing 800 hands, and turning out 4000 different kind of articles, valued at from \$4,000,000 to \$7,000,000 per year.

English authorities estimate the proportion of passengers killed in Great Britain by railway accidents, as only one in four millions; the number of employees killed is very much larger than that of passengers.

The American Steel Company will soon erect works at East Bridgeport, for the manufacture of cast steel.

A company of capitalists are about building an extensive mill at Paterson, N. J., for the manufacture of nails.

The Boston and Worcester railroad, on one day during the recent visit of the President to the former city, carried more than 21,000 passengers, the largest number ever transported over the road in a single day. Not one of these was injured, nor was there an engine or car off the track. The superintendent of the road has issued an order thanking his employees for their care, fidelity and attention on this occasion.

A road locomotive was successfully tried in the streets of Rome, recently, the experiment being made under the direction of the artillery officers of the Pontifical staff.

At St. Anthony's Falls, Minn., there are six mills, each of which turn out 6,000,000 to 12,000,000 feet long lumber, per year. Last year 30,000,000 shingles were manufactured in this vicinity. The flour mills at this point have a capacity of 3,000 barrels daily.

Editorial Summary.

DEATHS BY CHLOROPFORM.—As early as 1859 Barrier de Lyon ascertained that there had been over two hundred recorded deaths from the administration of chloroform as an anesthetic. In the next five years, Diday reported twenty-one registered cases, and at least as many unregistered, in England alone. Some cases, like that at Bellevue Hospital last winter, could not be attributed to any impurity of the article or imperfection in the administration. Canter remarked that half his chloroformized frogs died, and hardly any of his etherized ones. Unlike ether, the action of chloroform continues after its application is stopped.

GIGANTIC omnibuses, on a new model, have been constructed in Paris, specially for horse races and other out-door sights. They are so contrived that upward of fifty persons can be seated on the roof, and they constitute a kind of traveling grand stand.

CALIFORNIA MARBLE.—A pure white marble of a superior polish, and rivaling the finest Italian, has been discovered near Colfax, Cal., and only two miles from the Pacific Railroad.

A LOVER OF POTATOES.—A wealthy citizen of Berlin has applied to the municipality of that town for a site on which to erect a statue to Francis Drake, as the introducer of the potato into Europe, and offers to subscribe \$11,270 toward it.

SALMON IN AUSTRALIA.—The latest experiment in pisciculture has been the raising of the salmon in the river Dorwent. Three years since the first batch of salmon ova arrived on those shores, having been transported sixteen thousand miles on ice. After this protracted journey the fish hatched from the ova, were turned out into the river, and now the inhabitants are rejoicing over a fine run of veritable salmon.

A MONSTER CHERRY TREE now growing in Reading township, Ohio, has attained the height of 80 feet, and is four feet one inch in diameter. It is of the "black heart" variety, and the seed was brought from Berks County, Pa., in the year 1817.

PARISIAN PINE APPLES are made by saturating turrips with a sirup which the confectioners know very well how to manufacture. The resulting fruit is said to be delicious, and is quite popular among the Exposition visitors. In this city, a few days since, it was testified in court that the jellies sold as made from strawberry, pineapple, and other fruits were all formed out of apple jelly, colored and flavored with essences to suit the name.

SWITZERLAND has 3,500,000 inhabitants and 345 scientific and literary publications, while France, with ten times the population, has but about 500 journals and magazines. The solution of this is in the fact that in Switzerland the people all receive some education, and consequently can read, and take the papers, while in France less than one half can read.

TRANSPLANTING FULL-GROWN TREES.—Thirty beautiful elms fully forty feet in height, were removed from their native forests, and replanted in front of the site of Congress Hall at Saratoga, to take the place of the trees destroyed by fire. They are now in full leaf and appear to be thriving under this singular treatment. The same thing has been successfully accomplished in Scotland, also in Paris.

THE BANK OF ENGLAND has 30,000,000 in gold coin now on hand, there being no call for it, notwithstanding the low rate of interest. This is owing to dullness in business, and the falling off in the foreign trade, which has been ten per cent since September last.

SHEEP-SHEARING BY WIND.—A man in Wisconsin has a patent sheep-shearing machine which operates just like a reaper or mower, and mows a swath of wool an inch and a half wide. The motion is got by means of a little wind engine in the handle, which is to be driven by a force pump or bellows forcing wind into it by a flexible tube.—*Beaver Dam (Wis.) Citizen.*

A NEW method of vitrifying the surface of iron has recently been introduced in Paris. Instead of covering the surface of the iron according to the usual method with a very fusible glass in powder and then bringing the iron to a red heat, the materials of the glass are laid upon the iron, which is heated until perfect vitrification takes place. The consequence is that the iron becomes oxydized, and combining with the silicic acid, the iron and glass form one substance. The coating may be as thick as desired, but it is found in practice that a thick coat of glass soon breaks away, while a thin one lasts for a long time. The method is being applied or tried upon armor plates for ships.

THE STRAWBERRY growers of Vineland, N. J., during the season just ended raised nearly 278,000 quarts of strawberries, valued at \$38,000. Of these, 68,000 quarts were consumed or canned at home, and the balance were shipped to Philadelphia, New York, and other points. . . An Ohio fruit grower succeeded this year in raising one bushel, three pecks, and three quarts of strawberries from a square rod of ground.

A ROOM FULL OF GOLD.—Pure gold is nineteen times as heavy as water, and as a cubic foot of the latter weighs a thousand ounces avoirdupois, the same dimension of gold would weigh 19,000 ounces, valued at somewhat more than eighteen dollars per ounce, or the whole would be worth a little more than a third of a million dollars. The amount of the precious metal now existing is estimated at \$5,950,000,000, in value. If now this was melted, the resulting mass would have nearly 660 cubic yards, and might be placed in a room five yards high, eight yards wide and sixteen yards long.

SOME beef which was deposited in tins beneath a heap of stones in Spitzbergen, by Capt. Parry, in 1827, was recently discovered, and a portion was cooked and eaten at a supper in Stockholm, after being preserved for forty years.

MINERS' LAMPS.—Notwithstanding that every English miner who is detected in unlocking his safety lamp is liable by law to three months' imprisonment, the offense is committed with impunity by means of false keys. A simple plan has been invented by a manufacturer of these lamps, for sealing them without using any lock. When the staple has been put down over the eye, a small leaden pin is inserted in the latter, then being placed under a horizontal press fitted with two dies, the shank of the plug is formed into a head, and both heads are impressed by the dies with any lettering or device.

PARISIANS are fond of confectionery. According to the Chamber of Commerce about eleven millions of francs were spent in bon bons last year.

DEVILLE has lately made the observation that the addition of a little zinc amalgam to ordinary solder makes it applicable at low temperatures to aluminum bronze, cast iron, and also, no doubt, to other work in which quicksilver would not be objectionable.

THE SEVENTEEN-YEAR LOCUSTS have made their appearance over a belt of country, just northwest of Wilkesboro, N. C., extending far northeast and southwest, and being from thirty-five to forty miles broad. It is a singular confirmation of the claims of these insects to their popular name, that this identical stretch of country was visited by them in 1850 and not since.

FRANCE realizes over seven million dollars annually from the door and window tax, and on forests and fisheries more than eight millions; and from the sale of gunpowder, about two and a quarter millions. The sum of over forty-five millions dollars accrues from the sale of tobacco alone. For the administration and collection of the revenue she actually pays nearly forty million dollars.

FEMALE LABOR.—In Italy about one third of the whole number of laborers engaged in agricultural pursuits are women. In her manufactories 1,692,740 females and 1,379,695 males find employment. Out of 531,453 artists, nearly one fourth are women. There are 257,407 female landed proprietors there, and 313,497 maid servants. In France nearly one half the labor of almost all kinds is performed by females.

THE PANAMA RAILWAY.—Since the construction of this road across the Isthmus it has carried nearly 400,000 passengers and \$675,000,000 of treasure, the latter from the Pacific to the Atlantic side of the Isthmus. The silver shipments over the road are gradually declining, and most of the silver transported is shipped to the Isthmus from the Pacific coast of South America. Of freight, the road has transported 614,535 tons, but this year it is estimated the traffic will amount to 150,000 tons. America now controls the road, which runs through the territory of New Granada, but England is making great exertions to get possession of it.

SINCE 1837 there have been established throughout the world 160,000 miles of telegraph lines, comprising 400,000 miles of wire, and working through nearly 14,000 stations. The total length of submarine cables laid is 19,923 miles. The price of telegraphing is higher in the United States than in England.

THE CONTINENTAL HOTEL at Long Branch, is 700 feet long. A continuous piazza fronting the ocean extends its whole length.

It is calculated that 64,000 persons wear decorations of the Legion of Honor. A great legion, but no remarkable honor.

Recent American and Foreign Patents.

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

BRICK KILN.—Andrew S. McBride, St. Louis, Mo.—This invention relates to a new and improved brick kiln, so constructed that either coal or wood may be used as a fuel, and by it a great saving in fuel is effected and the bricks burned in much less time than hitherto. The invention consists in having the kiln constructed with a series of fire chambers at each side extending its whole length, with the smoke stacks at each end, and having the top of the kiln constructed of a series of dampers or adjustable slats, whereby the advantages above described are obtained.

GANG PLOW.—Robert R. Graves, Montgomery, Ala. Patented July 9th, 1867.—In this invention the dip of the plow is regulated, and means are provided by which upon encountering an obstacle the plow may be withdrawn without backing the team.

BROOM HEAD.—Lewis Allen, Berkley Springs, West Va. Patent dated July 9th.—The socket of the broom head is made of leather, pierced for the passage of the sewing twine and with a confining band, also pierced and retained on the socket by grooves in the latter.

SAWING MACHINE.—James R. Logan, Bellmore, Ind.—This invention relates to a cross-cut sawing machine and consists in a peculiar construction of the carriage on which the machine is mounted, whereby the frame of the machine may be retained in a horizontal position when placed on uneven or inclined ground. The improvement also consists in a modification of the construction of the standard or support to which the saw bar is attached when sawing felled timber; and, further, in the employment or use of a peculiar saw guide.

STEERING APPARATUS.—Thomas W. Murray, New York City.—This invention relates to a steering apparatus to be applied to the head of the rudder post of a vessel, whereby a very compact, simple and powerful mechanism is obtained for the purpose.

STRIPPING HIDES FROM BEEVES AND OTHER ANIMALS.—Christopher Brühl, Greenpoint, N. Y.—This invention relates to a useful machine for stripping hides from beeves and other animals, it being designed to supersede the manual prosecution of such work which is now clumsily practised at a considerable expenditure of time and labor.

RAKING ATTACHMENT FOR REAPERS.—John C. Hall, Monroe, Wis.—This invention has for its object to furnish an improved self-acting attachment for reapers which shall be so constructed and arranged as to imitate the natural movements in raking the grain from the reaper by hand.

MANUFACTURE OF BONE HANDLES FOR PARASOLS, CANES, ETC.—Joseph Harvey, Philadelphia, Pa.—Bone has long been used as a material for the manufacture of parasol, umbrella, and other handles, but it is not employed as extensively as it would be, provided sufficient stock could be obtained of proper size. This invention is to obviate this difficulty; it consists in constructing a bone handle of pieces connected together in a novel and very secure manner which will admit of a handle of the largest required size being made for various articles, including those enumerated.

GOVERNOR AND STOP MOTION.—F. J. Nutz and Philip Estes, Leavenworth Kansas.—This invention consists in an arrangement whereby the ordinary centrifugal governor is controlled in its action and assisted to perform its proper functions as a regulator of motion, and also in a device for instantly closing the valve and stopping the engine in case of accident.

LADDER.—Benjamin F. Turner, Bridgeton, N. J.—This invention relates to an improvement in ladders, for connecting several short lengths of separate ladders, in such manner that they may be readily and safely extended to be used as one long ladder, for a high elevation, or may be doubled upon each other to be used as a scaffold, or as a stage ladder, and thus be employed for various useful purposes.