[Reported Officially for the Scientific American.]

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING FEBRUARY 14, 1854.

PICKING AND CLEANING FLAX.—A. H. Caryl, of Sandusky City. Ohio,: I claim the employment of a picker having teeth hooked in the direction of the rotation and arranged on separate bars so connected with the shaft as to leave open spaces for the free passage of foreign substance as specified, when this is combined with hooked teeth in a series of bars above with open spaces between them substantially as specified, with a current or currents of air to acton the pickers during the operation of combing, and with the rotating brush acting on the picker teeth as specified.

VERTICAL TUBE FEED WATER HEATERS IN LOCOMOTIVE SMOKE STACKS—M. W. Baldwin, and David Clark of Philadelphia, Pa.: We claim the arrangement of the exhaust pipes with a vertical central passage of large section and surrounding passages of similar section, said central pipe and similar passages being open above and below as described.

MACHINE FOR CLEANING WOOL.—L. S. Chichester, of Brooklyn, N. Y.: although I have described and represented the form of the ribs, barbs and picker teeth I do not wish to be understood as limiting myself thereto.

Nor do I wish to limit myself to the use of a rotating brush for presenting or feeding the fibers to the ribs and picker teeth, as this makes no part of my invention.

Nor do I wish to limit myself to the form number or manner of making or operating the teeth.

I claim making the edges of the ribs when combined with picker teeth for catching and drawing the fibers through as specified with lateral inclined or curved slats terminating in an enlargement or hole to receive the fibers and guide them away laterally from the picker teeth to prevent them from being chafed or cut between the teeth and ribs as specified.

I also claim making the lateral slots in the edges of the ribs, as specified, and in combination with the picker teeth at or near the portion of that length of the ribs, where the fibers begin to be drawn through, as specified, whereby I effectually avoid the cutting of the fibers.

I also claim uniting the contiguous barbs of any two ribs, and extending them down below the points of the picker teeth, as specified, to prevent fibers from passing without being picked or drawn through.

Finally, I claim in combination with the ribs having lateral slots, as specified, the employment of card teeth interposed between the picker teeth, as stated.

VALVE COCKS—John Griffiths, of Philadelphia, Pa.: I claim the combination of the hollow fixed stem, the solid stem, and the yoked nut, as described.

FIRE AND BURGLAR-PROOF SAFES—F. C. Goffin, of New York City: I do not claim forming safe or door with double casing, for fire-proof safes are at present constructed in that manner.

I claim the use of glass or slag in a vitrified state, for filling the space between the two casings of a safe or vault door, the glass or vitrified slag being poured molten into the space, or inserted in plates which may be secured to the outer casing in any proper manner, and an air space left around the inner casing, as set forth.

PROCESSES FOR TREATING VEGETABLE FIBER—Jonathan Knowles, of Trenton, N. J. Patented in France, April 4, 1853: I am aware that Claussen has proposed to use in his process several of the salts I have mentioned, but in a different manner and with a different effect, but I make no claim to the use of any substance in any process such as he describes, nor in any other in which the bleaching and splitting of the fiber are effected separately.

I claim the method described of preparing vegetable fiber for picking, carding, spinning, and manufacturing into fabrics by such machinery as is usually employed for performing the corresponding operations on ordinary cotton and wool, by first steeping or boiling it in a solution of alkali; second, washing it with water; third, steeping it in a solution of chlorine bleaching compounds, mixed with a solution of splitting salts, to bleach and split it simultaneously; and lastly, washing it with water, and then drying it, as set forth, whereby the reduction of the fiber to its elementary filaments is expedited, and the expense thereof lessened, by dispensing with much of the tedious manipulation and treatment heretofore practiced, while at the same time the quality of the product is improved.

MAKING THICK PAPER—S. G. Levis, of Delaware Co., Pa.: I do not claim the employment of two forming cylinders for the purpose of making paper of increased thickness, as cylinders have been thus used before.

I claim the combination of the two forming cylinders, the two endless felts, and the two squeeze rollers, arranged and operating as described.

FIRE-ARMS—Thomas Cook (assignor to Starkie 'Livesey), of New York City: I claim, first, cutting slots in the tubes of the magazine, and with each tube a spring connected with a ring moving on the outside for feeding up the spring and maintaining the compressed position given at the time of charging the tubes with ammunition, as described, whereby I am enabled to force such charge into the conveyor by power independent of gravity, and to force the hole communicating with the powder, as described; and this I claim, whether the feed ring be combined with a screw exteriorly placed or within the interior of the cluster of tubes, or whether the same effect be produced by or in any manner analogous.

Second, I claim combining the tube magazine with the conveyor, in such a manner that it will be revolved so as to bring each tube of the series successively opposite to the hole through which the charge is fed to the conveyor, whenever and as often as a charge has been transferred to the barrel, as described.

Third, I claim the follower in combination with the cavity of the conveyor and the lever for ejecting the charge into the barrel, as described.

Fourth, I claim the cam groove, in combination with the finger levers, and the cap case to regulate the feed, as described.

MACHINES FOR PEGGING BOOTS AND SHOES—John Standish (assignor to John Standish & H. A. Miller), of Cuyahoga Falls, Ohio: I claim, first, the vibrating guides, in combination with the peg-feeding rack and driver, as described.

Second, the arrangement for feeding up the boot or shoe to be pegged; that is to say, the combination of the boot or shoe, held in a proper clamp, with the traversing frames, and with the irregularly curved rails or guides, as described.

Third, the method of regulating the feed by the rack, pawls, and weight or spring, as described.

DRYING CLOTH—Robert Preston, of North Pownal, Vt.: I claim the arrangement for bringing the bottom layer of the cloth within the drying chamber, to a suitable distance from the bottom of the chamber, so that it may be exposed to a proper and not too intense heat, consisting of the rollers, which are adjustable by racks and pinions or their mechanical equivalents, substantially as described.

SHIPS' VENTILATORS—Warren Robinson, of New Haven, Conn.; I do not claim any part claimed by Enoch Hidden, of New York in his patent.

I claim the combination of the movable part, with the two inclined planes, when the whole is arranged and combined as described.

HANGING THE FORE PLATE TO IRON ROLLING MACHINERY—Jacob Reese, of Sharon, Pa.: I claim hanging the fore plate of a rolling mill on centers, placed either above or below the level of the rolls, by adding arms to the fore plate, working on a bar or on pivots, for the purpose of removing the fore plate out of the way when the rolls are to be scoured without detaching it from the frame of the mill, as described.

PLANTING HOES—W. G. Sterling, of Bridgeport, Conn.: I do not claim the blade with a tubular handle attached, nor the opening and closing orifice for the discharge of the grain.

I claim the cylinder in connection with the tubular handle and the lever, with the sliding plate attached, as described.

APPARATUS FOR CONTROLLING THE PRESSURE OF STEAM—By H. S. Williams, of Malta, Ohio: I do not claim admitting water from a steam pump or "doctor," for controlling the pressure of steam in boilers, when said water is let on and shut off, by the agency of a float. Neither do I claim causing an alarm to be sounded when the supply ceases or when the pump is not running, through the agency of a float and steam cylinders combined.

I claim opening the water cock of the steam boiler for the purpose of letting on water for reducing the temperature and pressure of the steam, and thereby preventing explosions by means of a plunger and slotted arm, as described, when the supply should be let on by the pressure of the escape steam of the safety valve, and by means of a spring attached to the boiler and slotted arm, when the supply is being shut off, as specified.

I also claim starting the steam pump or doctor running, in case it should not be in operation when the pressure of the steam in the boiler rises above the given point, by means of the escape steam from the safety valve, when admitted to the steam chest of the pump through a branch pipe of that carrying the plunger, said branch pipe being provided with a valve, which prevents the steam from the "doctor" passing into the boiler, when the pump is running, but allows of the steam being admitted to the steam chest when the pump is not running, as set forth.

DROP BRIDGES—J. D. Woodruff, of Newark, N. J., and Joshua H. Butterworth, of Dover, N. J.: We claim the construction of a bridge or draw, which may be dropped below the surface of the water so as to admit the passage of vessels over the same, as described.

MAKING LINKS OF JACK CHAINS—Arcalous Wyckoff, of Wellsburgh, N. Y.: I claim the two fixed stnd pins placed at right angles to each other, in combiuation with the wiper and cutter, operated as set forth, for the purpose of bending the two eyes of the link of the jack chains simultaneously.

GAS BURNERS—John Webster & Orsen Spencer (assignor to John Webster), of Cleveland, Ohio: We claim affixing or applying to a gas burner an oblong or elliptical shaped tube, so constructed and arranged as to deflect a portion of the gas escaping from the burner into the draught of air which passes up between the burner and the tube, so as to produce a more brilliant flame, and more light from a given quantity of gas, as described.

SADDLE-TREES—G. B. Ambler, of Trumbull, Conn.: I claim the combination of the crouper loop in one piece with the water hook, for the purpose of securing either in their respective positions without the aid of screws or other appendages than those herein set forth, and to be used as described.

WATER CLOSETS—F. H. Bartholomew, of New York City: I do not claim the use of the chamber when combined with the supply pipe or hydraulic main, and the basin, by means of the common three-way plug turning cock, operated by the seat, as such combination has been before used in the water closet of Jordan; nor do I claim the puppet valve cock, with two valves, and three ways, as new in itself.

I claim, first, a three-way cock, with parts constructed and combined in the following manner, viz., having one principal chamber through which the water always passes, whether being received or discharged, two openings into which chamber being governed by two valves operated by one stem, so that when one is opened the other is closed by tha same action of the stem, the third way being without a valve, when these are combined with a second chamber for the accommodation of a short continuation of the valve stem, through which the cock is operated, and one of the ways is placed between the principal chamber and the stem chamber, as described.

Second, placing such a cock, as described, above, under the seat, or where it may be out of the way and may be operated by a single rod, when said cock is connected by a tube with a chamber, for the reception and discharge of water under pressure.

Third, I claim in combination with a double valve an eduction way, employable for the double purpose of wasting out the water remaining in the pipes above the cock, when not in actual use, and through means of which, or whereby a communication is provided with a chamber for the purpose of keeping it charged with air, by means of a valve or otherwise, at the same time that the said way is closed by a valve against the escape of water from the chamber, while the seat is depressed.

HORSE BELLS—Jason Barton, of Middle Haddam, Ct.: I do not claim the employment or use of two clappers or balls in each bell, for they have been previously used.

I claim hanging or suspending the tongues within the bells, as described, viz., having the tongues placed over curved holders, which are attached to the pad, said holders being within the bells, and so arranged that the tongues may be placed over them at different points, and thereby be suspended in the centers of the bells, irrespective of the positions which the pad and bells may have when attached to the body of the animal.

MACHINERY FOR PAGING BLANK BOOKS—J. L. Burdick, of New York City: I claim, first, the type holders, as set forth, in combination with the vertical type cylinder, for the purpose specified.

Second, I claim the use of the vertical sliding rod or frame, having a rack attacked thereto, in combination with the double acting crank shaft, and levers for operating the printing hammers, or substantially the same device, for the purposes set forth, and also the combination of the rack with the lever, and rod for drawing out the type holders, or their equivalent devices, substantially as set forth.

Third, I claim the use of the vertical sliding rod or frame, having a rack attached thereto for working the distributing inking rollers, in combination with the tape holding lever or their equivalent devices, as set forth.

Fourth, I claim the use of the vertical sliding rod or frame, having a rod attached thereto, in combination with the lever for operating the type inking rollers or their equivalent devices.

Fifth, I claim the use of the vertical sliding rod or frame, having an arm attached to the cap piece of the frame, in combination with the sliding plate and lever and pawl, or their equivalent devices, for the purposes set forth.

Sixth, I also claim the use of the adjustable table and clamps for holding the book while paging, in combination with the paging apparatus.

MACHINES FOR STUFFING HORSE COLLARS—J. W. Howell, of New Paris, Ohio: I claim the construction of the hopper with an adjustable grate or crib bottom, in combination with the piston, funnel, clamps, and lever, acting thereon, as set forth.

FIRE-ARMS—Horace Smith & D. B. Wesson, of Norwich, Conn.: We do not claim the employment of a carrier or slide for transferring the cartridge from the magazine to the barrel, nor the employment in combination therewith of a piston or slide to force the cartridge out of the carrier and into the barrel. Nor do we claim the employment of a piston slide as a breech to the barrel, nor the firing by "concussion" instead of "percussion."

Nor do we claim the employment of making or applying the percussion hammer so as to strike on the rear end of such piston slide, instead of directly against the cartridge or its priming, and so that the priming at the front end of the slide shall be exploded by concussion produced by the percussion or blow of the hammer on the other end of it, as specified.

But we claim the arrangement and application of the percussion hammer with respect to the breech slide and the trigger guard lever, so that the hammer may be moved and set to full cock by the pressure or back action of the slide induced by the action of the trigger guard lever, as specified.

We also claim the improvement of making the front end of the piston slide with a dove-tailed recess, or its equivalent, for the purpose of enabling the slide to seize the metal of the cartridge, as explained, and so that the refuse metal or cartridge may be withdrawn from the barrel by the piston slide when next retracted and discharged by the upward movement of the carrier, as specified.

MACHINE FOR SCRAPING AND TOOTHING VENEER—Allen Goodman & Lyman Wheeler, of Dana, Mass.: We claim a machine for scraping and toothing veneer, which has a large feeding bed roll around a portion of which the veneer is bent and held, and a revolving cylinder with scraping or toothing tools or knives inclined back from the axis of the said cylinder, so as to have a scraping instead of a cutting position, as described.

BALL VALVES FOR PUMPS—J. R. Bassett, (assignor to C. H. Williams), of Cincinnati, Ohio: I claim the method of aiding and ensuring the operation of the ball valve by means of an intervening or dividing ridge placed between the openings, and forming part of the semi-annular chamber, as described, by which the valve is made to seek apd occupy its appropriate seat when acted on by the discharge water in one or the other direction.

SMUT MACHINES—Jacob Benner, of Liberty, Pa. Additional to original Letters Patent dated Sept. 11, 1847: I claim making the slotted openings in the concave horizontal instead of vertical, as they were in the original patent, as described.

Second, the arrangement and combination of my machine in a close cover, together with the spouts in the manner, as set forth.

DISCLAIMER.

FIGURE AND FANCY POWER LOOMS—Your petitioners hereby enter their disclaimer to that part of the aforementioned specification, which commences "The modes of elevating and depressing the lifter," and ends "true and essential principle of my invention is preserved,"—being the fourth paragraph from the end of the specification: and also enter their disclaimer to the first, second, and fourth claims of said patent, which disclaimer is to operate to the extent of the interest in said Letters Patent vested in your petitioners, who have paid $10 into the Treasury of the United States, agreeably to the requirements of the Act of Congress, in that case made and provided.

M. A. FURBUSH,
GEO. CROMPTON.

DESIGNS.

COOKING STOVES—(Three patents)—Samuel D. Vose, of Albany, N. Y. Ante-dated Dec. 30, 1853.

PARLOR STOVE—Saml. D. Vose, of Albany, N. Y. Ante-dated Dec. 30, 1853.

PARLOR STOVE—N. S. Vedder (assignor to A. T. Dunham & Co.), of Troy, N. Y.

Crystal Palace—Report of the Directors.

The Directors of the Crystal Palace have just published a Report, containing a statement of their affairs. This document is not calculated to raise the stock *greatly* above par. The Company comes out minus $125,000; that is, instead of having made any profits, they have run in debt to that amount—for a part of which they have mortgaged the building. The capital stock is $500,000, and the total receipts were $891,070 72. The amount received for tickets was $330,702 90. The Report states:—"It is apparent, from the foregoing statement, that the disappointment in regard to the financial result of the enterprise is due mainly to the fact of the building not being completed at the time which it was intended, viz.: the first of May, 1853." This was owing to causes over which the Directors had no control. The Exhibition was, with great effort and difficulty, got ready for opening on the 14th of July, and then in a very incomplete state.

"Instead of a period of exhibition of seven months, the Association had in fact but about three; during that three months the sum received, from the sale of daily tickets, was $245-399 90." This is not a satisfactory apology. The largest amount of receipts was taken in the month of October, viz., $108,139 01; since then they have gradually fallen off.

The expenditures have been excessive. The persons who have come off best in the affair are the conspicuous, enterprising, know-how-to-make-money Edward Riddle, the American Commissioner to the London Exhibition. Mr. Riddle and the officers of the Association obtained a lease from our City Fathers of Reservoir Square, for five years, at the nominal rent of $1 per annum, and with their fiush way of paying out the stockholder's money, the Directors paid him $10,000 for this lease. This was cool and bright, was it not? No less than $15,412 97 were paid to Chas. Buschek, Gen. Agent, and Col. Hughes, Special European Agents. The Company purchased the bronze statue of Kiss's Amazon, from the former gentleman, for $10,000. The cost of erecting the building, independent of decorations was over $500,000, an enormous sum. It is a beautiful building, but it would have been well if the Association had taken our advice, and adopted the plan of Mr. Bogardus, as it would have been quite as imposing, and could have been taken apart afterwards, and erected into a number of beautiful iron houses, in any part of the world. The adopted building cannot be used for any other purpose than the one for which it was erected, *i. e.*, it cannot be taken apart and re-erected. An election of managers, is to take place next month. We hope that good ones will be chosen,—men who will infuse a new spirit into the affairs of the Association for the benefit of exhibitors and stockholders. It is intended to make the Exhibition permanent; this we think is not an unwise conclusion,—perhaps the only really wise one the present Directors ever made. Such an Exhibition, in New York City, under proper management, we believe, can be made to pay good dividends, and render a great benefit to the public at large. The present Directors have mismanaged all but their own affairs, badly; this is very evident. How much stock they now own we cannot tell—probably they sold out when the shares were 100 per cent., higher than they are at present, and they no doubt had much to do with their temporary inflation. We are quite positive that the Exhibition would have paid well this year, had it been properly managed; let able Directors now be chosen, and it will rise, Phœnix-like, into prosperity.

Steamships Beaten by Clippers.

The clipper ship Red Jacket made a recent voyage from this city to Liverpool in 13 days, 1 hour, and 25 minutes, which is something remarkable considering the extremely boisterous weather she encountered throughout the passage. On one day she ran 413 miles.

She had the wind from the S. E. to W. S. W., the whole passage with very stormy weather, either snow, rain or hail the entire voyage, bnt she received no damage, and arrived in port without the loss of a single rope yarn.—She run 15 knots on the wind, and 18 with the wind abeam.

The Red Jacket is a beautiful clipper ship of 2400 tons burden, and was built in Rockland, Me., by George Thomas.

Not one of the Collins or Cunard steamers have ever run 413 miles in one day, so that we may safely conclude, that our marine Steamships, have not yet attained to their maximum speed.

India Rubber Patent Case.

On the 16th inst. by Judge Betts, U. S. Circuit Court, this city, an injunction was granted against the New England Car Spring Co., on the petition of Horace H. Day, for infringement of the Chaffee patent. The injunction was ordered to issue unless security to abide the decrees of the Court is put in by the defendants in the sum of $25,000. Horace is now turning the table on his former pursuers; such is the mutability of human affairs; india rubber is a tough subject.

Zinc Applied to Ship-Building.

A sloop built of zinc, with iron framing and wooden decks, called the "Comte Ldhon," has been constructed at Nantes, France, by Mr. Gulbert, and named after one of the directors of the Vieille Montagne Company. She is elegant in form, draws but little water, and is considered in every respect a first-rate vessel. The command was given to Capt. Jouanno, of Lorient, and her first voyage was to Rio Janeiro, from which place she has just returned. The captain reports that the experiment has been highly satisfactory; she has proved an excellent sea-boat in repeated gales, which she had to encounter; and one fact is stated of much importance—that her compasses had never been in the slightest degree affected, a circumstance which often happens on iron ships, by which serious casualties have occurred.

Guano from Sea Weed.

A new patent substitute for guano, consisting of decomposed and concentrated sea weed, is about to be introduced in England, by a Mr. Longmaid, with the purpose of claiming the prize of $5000 offered by the Royal Agricultural Society. The material is reduced to powder so as to be applicable by the drill. A large number of experiments to test its fertilizing properties have been made dmring the past year. An analysis has been published by Professor Way. The process is stated to be very simple, and the price estimated at $25 per ton or under, and it is proposed starting manufactories at various points on the coast.

Another Gas Explosion.

An explosion of gas took place at Nashua, N. H., one evening last week by which a number of persons were injured and a house shattered to pieces. It was caused by introducing a light into a cellar, where there was a strong odor of gas, caused by its escape from a leaky pipe.—The person who introduced the light was not a reader of the Scientific American, or he would not have acted so unwisely, after what we have said in reference to such cases.