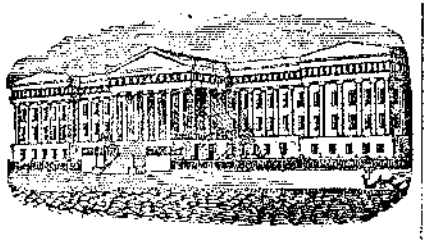

Reported Officially for the Scientific American

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING AUG. 23, 1853.

PROCESSES FOR PURIFYING ALCOHOL—By Luther Atwood, of Boston, Mass.: I claim the use of the manganates and permanganates existing as soluble compounds, however obtained, for purifying alcohol so as to adapt it to nice purposes.

GENERATING STEAM—By J. P. Moinier & P. H. Boutigny, of Paris, France. Patented in France, Jan. 18, 1853: We claim, in generators for generating steam at high temperatures from water introduced into the generator when in a highly heated state, injecting or introducing water from the top or near the top of the generator, when this mode of feeding or introducing the water is combined with the series of perforated metallic diaphragms described, arranged one above another in the generator, so as to subdivide the water, and at the same time increase the evaporatidg surface of the generator, as described, the water being gradually heated, and subdivided in its passage through the apertures or meshes of the diaphragms before it comes in contact with the more highly heated surface of the generator, as described.

SOAP CUTTING MACHINES—By J. B. Duff, of New York City: I claim making the wire knives, arranged and set with weights capable of yielding, so that they will form a loop in passing through the soap, and consequehtly cut it smooth and straight in combination with the feeding slatted bed, or any other equivalent device for feeding and forcing the soap up to the said yielding wire knives, the whole being as described.

[See notice of this invention on page 204, this volume Sci. Am.]

OSCILLATING STEAM ENGINES—By M. J. Gardner, of York, Pa.: I claim the mode of introducing the steam, the circular steam tubes, the circular steam chest, and packing boxes, as described.

I do not, however, confine myself to the precise position or dimensions of the various parts described, but to use such positions and dimensions substantially the same, as may be best adapted to produce the desired effect.

SEED PLANTERS—By Peter Horn, of Hagerstown, Md.: I claim the spring, in combination with the projection and arm or lever, for the purpose of opening and closing the recess through which the seed passes, as set forth.

Second, I claim the arm or lever, in combination with the lever and fulcrum, for the purpose of raising or lowering the drill tubes and operating the springs, as described.

HAY RAKES—By F. B. Parker, of Queensville, Ind.: I claim the spring catches projecting downward from the front ends of the hand bars, and provided with sloping lips, which, bearing upon the front tines, assist in holding the rake to its place until relieved by the withdrawal of the main stop, as described.

ARRANGEMENT OF CUTTERS FOR TURNING—By Milton Roberts, of South Levant, Me.: I claim arranging straight edged and grooved cutters on a frame moving parallel to the axis of the lathe, when said cutters are placed in pairs obliquely to the piece to be turned, each set forming salient angles with each other in the frame, by which arrangement each set acts by a gradual drawing cut upon the piece, the grooved tools following to finish the work.

[An engraving of this machine may be found on page 108, this volume Sci. Am.]

GRATE BARS—By Samuel Vansyckel, of Little York, N. J.: I claim forming a hook or catch upon the under side of the grate bars, and passing through or over said hooks, or catches a holding bar to prevent twisting or warping, as described.

BUTTER WORKERS—By Lettie A. Smith, of Pineville, Pa: I claim, first, the combination of the cooling drawer or ice box, with a butter tray, as described.

Second, I do not claim, in general, the device of the working lever in combination with a butter tray or table, but I claim forming such working lever with acute angles at the sides of its working face so that it may serve the double purpose of breaking or pressing the butter and turning it over.

[See notice of this invention on page 284, Vol. 7.]

RAILROAD CAR SEATS—By Wm. M. Warren, of Watertown, Ct: I claim the manner in which the foot boards are constructed and arranged, viz, the foot-boards being attached by joints to slides, said slides having racks on their upper surfaces, and working on beds connected by hinges, the under sides of the slides being provided with spurs or clicks, which catch into the racks, and retain the foot-board, when pressed upon by the feet; the beds being retained underneath the seat, when the foot-boards are not in use by means of the catches, or by any other convenient mode.

[See notice of this invention on page 108, this volume Sci. Am. Mr. Warren has two patents on car seats.]

BORING CANNON—By L. A. B. Walbach, deceased, late of the U. S. A.: I claim the method described of boring cannon or the barrels of other ordnance or fire-arms, by perforating the same with an annular hole, which leaves a central core, in combination with a second operation for detaching and removing the core, as specified, whereby the amount of material to be reduced to chips, the time and labor of boring, and the wear of tools, are greatly diminished, and the accuracy of the work increased.

I also claim the transverse cutter or the equivalent thereof, for grooving or cutting off the base of the core, as specified.

I also claim the method described of ascertaining the quality of the gun, by taking out a core of sufficient diameter and length, from the axis or center of the bore to be tested mechanically or otherwise.

COUNTERPANES—By Zachariah Allen, of Providence, R. I.: I claim the ribbed counterpane described, as a new manufacture, it being so made that the thickness and twist of the cords forming the ribs on the same, by their tendency to untwist, will give to the said ribs a wavy or undulating surface, as set forth.

PADLOCK—By Henry Ritchie (assignor to S. C. Thompson, G. W. Westerfield & Henry Ritchie), of Newark, N. J.: I claim the combination of the bolt, guard, and the double toothed tumbler, one tooth of said tumbler fitting in the shackle, and the other tooth fitting in the notch at the back of the bolt, the bolt, guard, and tumbler, operating as set forth.

[This is a very simple and good improvement.]

CUTTING AND BEVELLING PRINTERS RULES—By Snow Magoun, of Newton, Mass. (assignor to E. N. Moore & C. H. Crosby, of Boston, Mass.): I claim the machine described, for cutting and bevelling printers' rules, constructed with a sliding tool carriage, which carries the cutting tool forward and back across the rules, as set forth.

DIVING BELLS—By Jonathan Foreman, of Boston, Mass, (administrator of E. W. Foreman, deceased, late of New Rochelle, N. Y., and assignor to Henry W. Sears, of New York City: What I claim as the invention of the said Foreman is the combination of the reservoir of compressed air at the surface, in connection with the diving chamber or bell, and the arrangement of the movable block or pulley, as described, whereby the chamber or bell may be moved and directed at the will of the operator within, as set forth.

MACHINES FOR SEPARATING STRAW FROM GRAIN—By E. S. Snyder, of Charlestown, Va. Additional Improvement; original patent dated June 13 1848: Having set forth, in addition to the original specification, the utility of my additional improvements, I claim the peculiar construction of the rotary apparatus, formed of concavo, convex aprons or shields combined with the curved prongs, the said rotary apparatus used in combination with the threshing cylinder, as set forth.

I also claim setting the spout at about an angle of 45 degrees with the horizon, and adding the escape piece, to prevent the grain from flying about.

DESIGNS.

STOVE—By S. H. Sailor, (assignor to J. G. Abbott & Archilus Lawrence), of Philadelphia, Pa.

NOTE—Five of the patents in the above list were secured through the Scientific American Patent Agency.

[For the Scientific American.]

To Prevent Dampness in Brick Walls.

Dampness in walls may be prevented, and a more uniform temperature secured in the rooms, by enclosing a stratum of air in the wall. A space of about three inches, should be left between the outside half brick, or stretcher, and the inner wall: this space may be commenced on the foundation course; where it is desirable to have the basement story dry; where it is not, it should be commenced at the first floor, and extend around the building.

Then cut wire about three-sixteenths of an inch in diameter (or not thicker than the joints in the wall are intended to be) into pieces, nine inches long, bend one inch of each end of these pieces to a right angle, and both ones in the same plane, for ties to connect the wall across this space. Every three courses lay them over it, about two feet apart, with their ends half away across the bricks upon which they lay, so as to have them not over each other, but equally distributed along the space. If the space is not over three inches wide, it may be closed at the top by a heading course, which, being sheltered from driving rains, by the cornice, and eaves, will not conduct any water to the inner wall. At the ends of the building it may extend to the top of the joists, and the wall be dropped off the thickness of the space, and then built solid, or it may be continued to the rafters. At the door and window jambs the band may be kept as usual, by clipping the headers; and at the chimney, the space may be stopped at the flues, and greater thickness of the chimneys will insulate them.

As atmospheric air is one of the very worst conductors of heat, it will prevent the wall from being suddenly heated or chilled through by changes in the weather. In very cold climates it would be better to have strips of sheet iron, three and a half inches wide, laid along over the space at the top of each story, with one edge resting in the joint of the outer wall, or upon the wires, and the other leaning back against the inner wall, so as to be highest on the inside, and the partition walls to extend across the space and connect with the outer wall. This, by cutting off the communication, would prevent the air, as it acquired a more elevated temperature by the heat of the room in which the fire is kept, from rising, and its place being supplied by the colder air from other parts of the building; and then, by having duplicate sash in the windows, with a stratum of air between them, the insulation would be complete. To prevent injury to the wall, from the expansion of the enclosed air, small openings should be left between the ends of the bricks, near the bottom of the space, about half an inch wide, or not large enough to admit rats. The pieces of wire may be dipped in pitch or oil paint to keep them from rusting.

These pieces of wire may appear to be a slender tie to many, but it should be remembered, that though a single hair is quite slender, a horse may be pulled out of the mire by his mane, and any required strength may be attained by increasing the number of wires. But placed as above recommended, the wires would bind the wall better than it is often done by the present mode of binding it without heading bricks, for as the tie is hidden by the first course that is laid over it, it is liable to be forgotten and neglected; and this may be one cause of the frequent falling of walls in your great city; the wires across the space will, at any time, be visible, until the space is closed. For this imperfect mode of binding the outside wall, it would be better to leave the space nearest to the inside wall, as the thin part would then be less exposed. By superseding the old Flemish or English bond, with the present modes in common use, the gain in beauty is not commensurate with the loss in strength, and mechanics generally are too much inclined to sacrifice the latter to the former. Those, however, who acquire a character for doing the most substantial durable work, should have the preference; they at least have the pleasure which arises from the consciousness of having done their duty.

By having bricks of double width moulded, and every fifth or sixth course laid with them, the bond of all stretchers might be preserved, without at all diminishing the strength of the wall; but so far as my observation has extended this has not been done.

HEZH. POLLARD.

Lafayette, Mo. Aug. 8, 1853.

Scientific Memoranda.

THE MOON'S MOVEMENTS WRONG.—The "London Court Journal" says, Mr. Adams communicated to the Royal Society, at the closing meeting of their session in London, that he had discovered that the principle of Laplace's calculation of the secular motion of the moon is positively erroneous. This is a discovery which affects the whole range of lunar astronomy, seeing that all the caculations made on the assumption that the moon really was in the place assigned to her, are wrong. A staff of computers will therefore have to be set at work at the Observatory to recompute the lunar observations, avoiding the error, which amounts to about seven seconds. We shall then have the means of rectifying our Nautical Almanac, and of making it more accurate than ever; while those astronomers, and they are not a few, who have written about ancient eclipses, will have to go over their task again, and see what they make of it with the new principle. It was said, shortly after Mr. Adams' discovery of Neptune, that such a man would find other great works to do in astronomical science, and here we have an invaluable confirmation.

SCIENTIFIC ENTHUSIASM.—Professor Agassiz could not attend the Convention lately held at Cleveland, on account of sickness caused by his researches in the rice swamps of the South. The Cleveland Herald says:—His search for things new and strange at the South was crowned with complete success; but he contracted the malignant fever of the country, from which he barely escaped with life. Among other novelties which he found there, was a fish without ventral fins, and it is related as expressive of his unextinguishable enthusiasm in matters of science, that when slowly recovering, a friend called to see him and said to him, "I am sorry to hear, Professor, that you have been dangerously ill." "Ah, yes," said Professor A., "I have been very sick but no matter, I have found a fish without ventrals."

PHOTOGRAPHS ON WOOD.—Drawings of this art on wood have lately been successfully produced in Manchester, England. Beautiful pictures of buildings, and perfect portraits of individuals have been drawn by sunlight upon smooth blocks of boxwood, such as are ordinarily used by wood engravers. This discovery will be of invaluable service to the latter art, as it will save the expense of employing draughtsmen to mark the blocks previous to engraving. Drafts of complicated machinery in perspective, and other complicated sketches, which require much time, expense, and skill in the preparation of blocks for engraving, can now be produced in a moment with the light of the sun.

Always Begin Right.

The following extract is from the Philadelphia Ledger. We sincerely commend it to our young readers; it contains "the words of truth and soberness:—

"Above all things, life should be begun right. Young men rarely know how much their conduct, during their first few years, affects their subsequent success. It is not only that older persons at the same business form their opinions of them at this time, but that every beginner acquires, during these years, habits for good or ill which color his whole future career. We have seen some of the ablest young men, with every advantage of fortune and friends, sow the seeds of ruin and early death by indulging too freely in the first years of manhood. We have seen others, with far less capacity, and without any backing but industry and energy, rise gradually to fortune and influence. Franklin is a familiar illustration of what a man can do who begins right. If he had been too proud to eat rolls in the street when he was a poor boy, he would never have been minister plenipotentiary to the court of France.

Always begin right! Survey the whole ground before you commence any undertaking and you will then be prepared to go forward successfully. Neglect this, however, and you are almost sure to fail. In other words, begin right. A good commencement is half the battle. A false first step is almost certain defeat. BEGIN RIGHT."

Change in the Patent Office.

E. Foreland, of Maryland, has been promoted to Assistant Examiner in the Patent Office, in place of Dr, Everett, promoted to Examiner, vice F. C. Smith, resigned.

Mr. Smith was an able Examiner, and we are glad to learn that the vacancy occasioned by his resignation has been filled by Dr Everett's promotion. Dr. E. has been some years in the office, and deserves the position he now occupies. Judge Mason is conducting the affairs of his office with creditable zeal and energy, and we hope he will reform past and present abuses with prudence and discretion. Hasty conclusions are injurious and not easily mended, especially where important interests are at issue. The complicated and illiberal management of this department during past years, has been the just cause of ceaseless complaint.

Foreign Subscriptions.

Foreign subscriptions to the Scientific American can be paid in London, to Messrs. Avery, Bellford & Co., No., 16 Castle street, Holborn, and to M. M. Gardissal & Co., No. 29 Boulevard St. Martin, Paris, or to their agents located in the chief cities throughout the continent of Europe. The above firms are our sole and exclusive agents and correspondents in Europe, and all subscriptions and remittances can be made through them. It is also desirable for parties abroad intending to employ us as agents, that they should in future consult our foreign agents and correspond through them. This is the most satisfactory course to pursue.

Crossing the Ocean in Six Days.

Major Norris, of Philadelphia, at the dinner given to Mr. Saunders, in this city, last week, stated that a vessel was now building in this city, which would make the voyage to an English port in six days, before the first of February. J. W. Griffiths is the architect, and Mr. Norris, the engineer; he said it was no experiment, but a fixed fact. Well, we hope so, but we will allow the said vessel 8½ days at least.

Steamship Burned.

The U. S. Mail steamship Cherokee, was destroyed by fire while lying at her wharf in this city on the evening of the 26th ult. The value of the vessel was $200,000, and she had a cargo in, all ready for sea, worth about $300,000. The spectacle of this burning vessel was grand and terrific. Some suppose that it took fire by the spontaneous combustion of some articles on board.

The Dublin Exhibition.

The Dublin Exhibition is now attended by nearly 10,000 visitors daily, including a shar of the Irish aristocracy. Its soccess is therefore no longer doubtful.

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