

Woodworth's Patent.

"The schedule referred to in these letters patent, and making part of the same, containing a description in these words of the said William Woodworth himself, of his improvement in the method of planing, tonguing, grooving and cutting into mouldings, of either, plank, boards, or any other material, and for reducing the same to an equal width and thickness; and also for facing and dressing bricks and cutting mouldings on, or facing metallic, mineral and other substances.

The plank, boards, or other material being reduced to a width by circular saws, or friction wheels, as the case may be, is then placed on a carriage, resting on a platform with a rotary cutting wheel in the centre, either horizontal or vertical. The heads or circular plates fixed to an axis, may have one of the heads moveable, to accommodate any length of knife required. The knife fitted to the heads with screws or bolts; or the knives or cutters for moulding fitted by screws or bolts to logs, connecting the heads of the cylinder, and forming with the knives or cutters a cylinder. The knives may be placed in a line with the axis of the cylinder, or diagonally.—The plank or other material resting on the carriage, may be set so as to reduce it to any thickness required; and the carriage moving by a rack and pinion, or rollers, or any lateral motion to the edge of the knives or cutters on the periphery of the cylinder or wheel, reduces it to any given thickness. After passing the planing and reducing wheel, it then approaches if required, two revolving cutter wheels, one for cutting the groove, and the other for cutting the rabbits that form the tongue; one wheel is placed directly over the other, and the lateral motion moving the plank or other material between the grooving and rabbiting wheels, so that one edge has a groove cut the whole length, and the other edge a rabbit cut on each side, leaving a tongue to match the groove. The grooving wheel is a circular plate, fixed on an axis with a number of cutters attached to it, projecting beyond the periphery of the plate, so that when put in motion, will perform deep cut or groove parallel with the face of the plank or other material. The rabbiting wheel, also of similar form, having a number of cutters on each side of the plate, projecting like those on the grooving wheel, cuts the rabbit on each side of the edge of the plank, and leaves the tongue a match for the groove. By placing the planing wheel, axis, and cutter knives vertical, the same wheel will plane two planks or other material in the same time of one, by moving the plank or other material opposite ways, and parallel with each other against the periphery of the planing or moulding wheel. The groove and tongue may be cut in the plank or other material at the same time, by adding a grooving and rabbiting wheel.

Said William Woodworth does not claim the invention of the circular saws, or cutter wheels, knowing they have long been in use, but he claims as his invention, the improvement and application of cutter or planing wheels to planing boards, plank, timber, or other material; also his improved method of cutters for grooving and tonguing, and cutting moulding on wood, stone, iron, metal, or other material, and also for facing and dressing brick; as all the wheels may be used separately and singly for moulding, or any other purposes before indicated. He also claims as his improved method the application of circular saws for reducing floor plank and other materials to a width. Dated Troy, Dec. 4th, 1828.

WILLIAM WOODWORTH.

Witnesses: Henry Everts: L. S. Gleason.

I certify the above is a true copy of the Schedule attached to my patent.

WILLIAM WOODWORTH.

Improved Claim.

This improved claim is the basis of all the issues of Woodworth's patent; and revised from the original, by Mr. C. M. Keller we believe.

CLAIM.—The employment of rotating planes substantially such as herein described, in combination with rollers or any analogous device to prevent the boards from being drawn up by the planes when cutting upwards, or from the

reduced or planed to the unplaned surface as described. And also the combination of the rotating planes with the cutter wheels for tonguing and grooving, for the purpose of tonguing and grooving boards, &c., at one operation as described. And also the combination of the tonguing and grooving cutter wheels for tonguing and grooving boards at one operation as described. And finally the combination of either the tonguing or the grooving cutter wheel for tonguing or grooving boards, &c. with the pressure rollers as described.

Printing and Literature in China.

The Chinese lay claim to the invention of printing, at an early period. From the nature of the language however, this art does not appear capable of much improvement, since the Chinese language consists of between 70 and 80 thousand characters, each character representing a distinct word. It seems almost impracticable to use moveable type, and therefore they adopt the plan of cutting in relief all the characters of the work to be printed, on slabs of very hard wood. The printer daubs these over with a preparation of Indian-ink, and the paper, being pressed upon them, receives the impression. One coating of printing fluid is sufficient for two or three impressions, but the paper being of too porous a nature to receive impression on both sides it becomes necessary to fold the paper. These doubled sheets are then stitched together, the fold is at the outer edge, with two coarser sheets of paper to form a cover. But the wealthier classes are as particular as we are, in their bindings, which are of beautifully figured silks and satins, sometimes of gold or silver tinsels. The Chinese being a reading nation, never destroy the slabs on which the characters are cut, which are laid by with great care, and the place of their deposit is referred to in the preface of the work.

Books are sold at so cheap a rate that they are within the reach of all. But it is deplorable to witness the depravity of taste so publicly exhibited in China, by the circulation of an enormous number of obscene publications and indecent engravings, which are eagerly sought after. The taste for reading may be very cheaply gratified in China, by means of itinerant circulating libraries, which are carried about by their proprietors, in boxes slung over their shoulders. In no part of the world is education so universal as it is in China. In such estimation is literature held that literary attainments form the only passport to the highest offices in the state.—Each province is furnished with officers appointed to examine claimants or aspirants to state preferment, who go their circuits twice in each year. Each candidate must submit to repeated examinations previous to the distinction of being placed upon the books for preferment. When a man has reached the highest class of literary attainments he is examined by the Emperor in person, and if approved of by him he attains the highest honors. It would appear that genius or originality is not so much admired in China as memory. The power of reciting the greatest number of the sayings of their ancient sages is considered the acme of learning. Every literary honor confers the rank of a mandarin on its possessor; and each grade is distinguished by its peculiar dress. Although honors are not hereditary (even the emperor selects whom he pleases as his successor from the royal blood,) yet the descendants of men of learning are treated with the greatest respect. In proof of this the descendants of Confucius, who died more than two thousand years ago are treated with the greatest consideration by all classes from the emperor to the lowest coolie. So highly is learning prized, that very frequently, deceased ancestors are ennobled in compliment to the attainments of their descendants. The emperor causes a book of merit to be kept, in which are recorded the various titles and descriptions of the mandarins, and those of their actions which are deserving of praise. Should however a mandarin be degraded (which frequently occurs) the reason of his punishment is stated with equal accuracy. Gazettes, by the emperor's command, are commonly published at Peking, which contain imperial grants of land

remission of taxes, public acts, &c. &c. The day which is selected by the emperor for all public executions is notified by means of this gazette. The degradation of mandarins is here announced; and the events of war are bombastically set forth, which invariably represent the deeds of the nation as successful. The official reports contained in this gazette, during the late war, of the thousand upon thousands of the English who were daily slain and driven before their conquerors, were truly astounding.

Loss of the Victoria Balloon.

Mr Green, the veteran English aeronaut, has had the misfortune to lose his celebrated Victoria Balloon, by means of which he has made many voyages, sometimes accompanied by a number of his friends. He had given notice of his intention to make his 409th ascension at Halstead on Oct. 27th, but a violent storm of wind and rain compelled him to postpone the excursion to the following day. On that day the weather had undergone no improvement. A great concourse of visitors, however, having assembled, the process of inflating the balloon was suffered to go on, in the hope that the storm might abate. The sequel is thus described by the London Times:

The committee had made the best possible arrangements; all parties concerned were in harmony, and anxious to give satisfaction—but the elements forbade the fulfilment of their desires. The storm increased, the wind kept up its attacks on the restrained aerial monster as though determined to sweep it away. Moored to the earth by five strong ropes and stakes, ballasted by about one ton and a half of iron weights attached with ropes to ring or hoop, surrounded by about 30 or 40 powerful laborers and members of the committee, employed under the control of Mr. C. Green and his brother, in governing the furious rolling and violent lifts and plunges of the grand prisoner; it seemed for a long time the efforts and resolute energy of humanity might be allowed a victory over the fury of the blast. But alas! about a quarter to 12, o'clock, when the hurricane was at its height the immense inflated creature was raised by a sudden jerk a few feet from the earth. Again and again it lifted and rolled and dashed itself to the ground; and on the part of the brave fellows who stuck to the ropes and netting there was an indomitable perseverance scarcely conceivable. The danger of being dashed among the dangling weights, or violent hurled to the ground, was most imminent but all held on manfully until, at 12 o'clock, one of the long strained ropes was snapped by the throes of the immense machine. At once, the hoop with the iron weights and 20 human beings were lifted up six or eight feet from the ground. The hoop broke in halves, dropping men and iron weights in a confused heap beneath; and doubling its height, the balloon rose to 16 or 18 feet, with the stakes by which it had been confined wrenched from the ground, and two or three men still hanging on the hoop. The netting however being no longer equally retained by the broken hoop, and the balloon rolling entirely over on its side in the air (owing to the detention of one remaining rope,) the netting suddenly ripped up on the side of the balloon then uppermost, and the silk enclosure, shelling itself out of the ripped envelope, burst from end to end. The men and weights and netting fell mingled in confusion—away flew the immense mass of silk, rent in every direction, and the grand balloon was no more!

The Power of Music.

Music exerts a singular influence over the minds of men, but perhaps over no man did it exert such a singular influence as over Martin Luther. One striking peculiarity of his character was his singular and enthusiastic love of music. Not that there is abstractly any thing remarkable in such a passion; but in him it had a singular effect—contrasting strikingly with the bold and indomitable qualities of his nature. He had an admirable ear for harmony, and by no means unproficient on several instruments. He had also a beautiful voice, which he constantly kept in order by the chanting of hymns and several songs. The principles of church music he studied profoundly—and he composed several pieces

of great merit. But the most striking thing about his musical character was the power which melody had over himself. He seemed melted and subdued into a state of almost helplessness by its tones. Amid their influence, all other faculties of body and mind appeared suspended:—he was in a state of ecstatic rapture. In letters which he wrote to Liuccius, (Frankfort edition 1647,) we find him jesting about his extreme susceptibility—which he considers as a weakness in his character. He tells Liuccius seriously that it was his custom to sing a hymn every night before he retired to bed; and, such was the soothing power of the melody on him, that however much he might have been excited or troubled throughout the day, from the moment when the key fell upon his ear, he forgot all earthly matters and vexations.

TO CORRESPONDENTS.

"F. R. B. of Ill."—The engine we have would answer your purpose fully and you would be pleased with it. We could not dispose of the engine apart from the boiler. You probably saw the engraving and description of them which we published in No. 9 of this vol. Scientific American. Much obliged for the names you sent; hope to receive more from you. \$2, all right.

"H. J. B. C. of N. C."—J. Grant, Providence, R. I., we believe is the name of the gentleman to whom you refer. Further we have no recollection or way of ascertaining.

"G. W. of N. Y."—The expense of printing your table would be \$25. We do not think it would pay.

"J. & P."—We have not yet got the claim you desired but whenever it is received you shall have it.

"H. C. of —."—We doubt whether the application of a syphon formed pipe to the upper end of a pump would accomplish the object at which you aim. You can easily try.

A. S. of Ky."—Please accept our thanks for the very fine list of subscribers you have sent: we hope to keep them on our list always, together with others which you may hereafter send. We are glad to know that you are so well satisfied with the engine lathe we sent you, we presume you will not need any hint from us to tell your friends that whenever they wish machinery to send to the Scientific American office. A 4 horse engine and boiler, new and complete will cost you \$450, 6 horse ditto \$600. We can send you one of either size whenever you wish. Good second hand engines can be had for nearly one third less. Mr. S. has paid for your third volume. \$8 all right.

"W. W. H. of Pa."—We received your letter and pamphlet with much pleasure. The first and second vols. of the Scientific American cannot be obtained. We saw sometime ago one of your muskets with which we were highly pleased. Would you not like to publish engravings of some of your inventions in our paper? It would give you much creditable notoriety, and aid you in disposing of your Patents if you so desire. The expense would be trifling.

"F. of N. Y."—In last week's paper you probably saw an account of Remington's bridge which gave an outline of his mode of construction. The paddle wheel you refer to is not yet patented, though measures are in progress. The paddles come from the water perpendicularly owing to the superior gravity of the metallic part; but they do not preserve their perpendicularly in the water unless the pressure upon both surfaces is the same. On entering the water they seek such an angle as makes the pressure on both surfaces equal.

"J. A. P. of Ala."—You can obtain such a machine for from \$10 to \$35 of any manufacturer of Cotton Machinery.

"G. M. G. of Mass."—We could not dispose of one volume of the work as both must be taken together. Price \$25. We have never seen a sieve exactly like yours. Send on your drawing.

"A. B. of Mich."—Both your letters have been received and the money remains with us subject to your disposal.

"C. L. of Ct."—There is little prospect of doing any thing this winter with our windlass. Relative to the other invention see answer to "I. A. of Pa." under Patent Correspondence.

"J. B. C. of Ala."—By a differently constructed boiler from yours and the use of coal you could save much in fuel.

"H. B. of N. H."—We understand that the drawings of which you enquire, are about being published and as soon as we receive some copies we will notify you through the Scientific American.

"J. B. E. of Pa."—We shall publish next week—just one hour too late for this paper.

"B. D. C. of Ct."—We are yet able to furnish the 3d volume of the Scientific American neatly bound for \$2.75, or in sheets complete for \$2, accompanied with an Index.

To Patent Correspondents.

"J. R. of N. Y."—We suppose you wish to enter a Caveat at the Patent Office, as there is no other way by which you can notify them of your invention except to your own disadvantage.

"C. & G. of Ohio."—We think there is nothing to prevent the success of your application for a Patent and it will hardly be worth while to go to the expense of an official examination.

"D. V."—We are not disposed to accept your offer.

"T. A. D. of Ky."—The principle you present is not new, besides it is covered by Morse's Patent. It will, we think be a useless expense to apply for a patent.

"I. A. of Pa."—We have had as many as six letters from persons who say they have invented the same thing also. No patent can be obtained we think.

"H. C. B. of Ohio." We are acquainted with the express line between N. Y. and B.—cannot get any trace of your box. We had one from your place a while ago which was very long in coming.

"H. C. of Ga."—We could not ourselves nor do we know of any one who would undertake to secure your Patents on the terms you name. The expense of a patent is quite trifling and if you try you can doubtless find some one of your acquaintances who would join you.

"L. F. M. of N. Y."—You could not patent the application for fastening doors. There is nothing about it you can patent unfortunately. We have not time to look up any one to make them.

"E. F. W. Pa."—We have since ascertained that the same invention was discovered a long time ago, and we now think you could not obtain a Patent.

"G. S. D. of Mass."—We do not think it would pay you to get it patented. It is a very good thing but too many patents have already been granted on similar constructions.

"S. G. Jr. of N. H."—In our opinion you could not obtain a patent for the application of Gutta Percha to the purpose you name nor for the method of applying water, as it is not new.

"S. T. of N. H."—Your papers will be ready in a few days. \$30 all right.

"J. C. M. of Mich." A model is indispensable as they require one at the Patent office and we must make the drawings from it.

"A. Mc. A. of N. Y."—So long a period has elapsed that you could not obtain a re-issue, nor if it were possible should we wish to undertake the case on the terms you name.

"H. L. M. of Ct."—We have known of one or two instances where machines have been stopped by Gibson, though we do not think it an infringement on Woodworth's Patent.

"J. P. of Mass."—It is impossible to say with certainty whether you could obtain a Patent or not for your mode of preparing glue. You could if it is entirely new and really useful.

"D. of N. Y."—Send on your model.

"J. & N. E. of O.," "M. & M. of Mass.," "B. D. S. of Pa.," and "H. G. F. of Ct."—Your specifications have been received since our last issue and sent with the drawings to Washington.

"S. G. W. of N. Y."—Both of your specifications came duly to hand and the amount received is all right. They have been forwarded to the Patent Office. Your Corn Sheller will appear in our next number.

Robbery of the Mail.

On last Saturday evening the Way Mail for the South was robbed in the City of Philadelphia. We are afraid that some of our Southern correspondents may miss their letters as we sent away quite a number on that day.

The List of Patents.

Our regular weekly list of Patents had not arrived from the Patent Office when we went to press.

Advertisements.

This paper circulates in every State in the Union, and is seen principally by mechanics and manufacturers. Hence it may be considered the best medium of advertising, for those who import or manufacture machinery, mechanics tools, or such wares and materials as are generally used by those classes.

Table with 2 columns: Description of ad (e.g., One square, of eight lines one insertion) and Price (e.g., \$0 50).

TERMS:—CASH IN ADVANCE.

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Table listing agents for the Scientific American in various cities: New York City, Boston, Philadelphia, Albany, Andover, Mass., Baltimore, Md., Bermuda Islands, Bridgeport, Ct., Cabotville, Mass., Concord, N. H., Cincinnati, O., Dover, N. H., Fall River, Mass., Hartford, Ct., Houston, Texas, Halifax, Nova Scotia, Jamestown, N. Y., Lynn, Mass., Middletown, Ct., Norwich, Ct., New Haven, Ct., Newburg, N. Y., Newark, N. J., Newark, N. J., New Orleans, La., Paterson, N. J., Providence, R. I., Rochester, N. Y., Springfield, Mass., Salem, Mass., Saco, Me., Savannah, Geo., Syracuse, N. Y., Taunton, Mass., Utica, N. Y., Vicksburg, Miss., Williamsburgh, Webster, Mass.

CITY CARRIERS.

Persons residing in the city or Brooklyn, can have the paper left at their residences regularly, by sending their address to the office, 128 Fulton st., 2d floor.

SUPERIOR ENGINE LATHES.

We are manufacturing and selling at our establishment in New London, Ct. a superior article of Screw Engine lathes and also hand lathes of every dimension at an extremely low price.

The Best Patent Agency in the United States.

THE subscribers would respectfully give notice that they still continue to attend to Patent Office business as usual. The long experience they have had in securing patents, together with their unrivalled facilities, enables them to say that THE BEST PATENT AGENCY, in the United States, IS AT THE OFFICE OF THE SCIENTIFIC AMERICAN, New York.

HOLDEN'S DOLLAR MAGAZINE.

LARGEST! CHEAPEST! BEST! 768 Pages in the Volume! Vol. III. commences Jan. 1st, 1849. 8 to 20 splendid Wood Engravings each month!

The Portraits of Distinguished American Divines will be continued in every No., as heretofore, with life-like sketches of their lives and ministry. Each No. will be filled with Tales, Poems, Essays, Reviews, Sketches, Translations, Topics of the Month, and will embrace everything AMUSING INSTRUCTIVE AND READABLE in the world.

TERMS FOR 1848—(IN ADVANCE.) One copy one year, \$1 00; Five copies " " \$4 00; Twenty " " \$16 00.

Johnson's Improved Shingle Machine. THE Subscriber having received Letters Patent for an improvement in the Shingle Machine, is now ready to furnish them at short notice, and he would request all those who want a good machine for sawing shingles, to call on him and examine the improvements he has made, as one eighth more shingles can be sawed in the same given time than by any other machine now in use.

The largest, best and cheapest Dictionary in the English language, is confessedly WEBSTER'S,

the entire work, unabridged, in 1 vol. Crown Quarto, 1452 pp. with portrait of the author, revised by Professor Goodrich, of Yale College. Price, \$6.

To Mill Owners. HAVILAND & TUTTLE'S Patent Centre Vent Pressure Water Wheel.—These wheels are now in successful operation in many towns in Maine, Massachusetts, and Rhode Island, and are found to surpass in power and facility of adaptation any water wheel now in use.

STEAM BOILERS. BENTLEY'S Patent Tubular and other Boilers of any size, shape or power, made to order, by SAMUEL C. HILLS & CO. 43 Fulton st.

Agricultural Implements. Inventors and Manufacturers of superior Agricultural Implements may find customers for their goods by applying at the Agricultural Warehouse of SAMUEL C. HILLS & CO. 43 Fulton st.

GENERAL PATENT AGENCY. REMOVED.

THE SUBSCRIBER has removed his Patent Agency from 189 Water to 43 Fulton street. The object of this Agency is to enable Inventors to realize something for their inventions, either by the sale of Patent Goods or Patent Rights.

Johnson & Robbins, Consulting Engineers and Counselors for Patenteers. Office on F street, opposite Patent Office, Washington, D. C.

PREMIUM SLIDE LATHE.

THE subscriber is constantly building his improved Lathes of all sizes, from 7 to 30 feet long, and can execute orders at short notice.

Machinery. PERSONS residing in any part of the United States who are in want of Machines, Engines, Lathes, or ANY DESCRIPTION OF MACHINERY, can have their orders promptly executed by addressing the Publishers of this paper.

TALBOT'S PATENT BLIND HINGE. THE undersigned having become interested in the manufacture and sale of the above article, would state that their facilities are such, that they can supply any demand at short notice.

PECK'S PATENT VISE WITH FOOT LEVER. THIS Vise is worked entirely by the foot and is admitted by all who have used them to be the best and, strength, saving of time and convenience considered, the cheapest Vise in use.

Those Hats. KNOX of 128 Fulton street, is on hand with his Autumn style of Hats, and as usual furnishes a little prettier shape, made of a little better material and for a much less price than many of his Broadway friends who boast of the superiority of their productions.

Daniel's Patent Planing Machine. WE have now on hand one of these machines which we will dispose of for the very low sum of \$250. It is capable of planing boards, lumber or any stuff from 16 ft. long by 22 inches wide, down to pieces of the smallest dimensions.

POWER TO LET—RARE CHANCE. THREE rooms, 40 feet square, one room 60 by 40 feet, 2d floor, power from engine, 25 in cylinder, 4-1/2 feet stroke. Let together or in parts. Apply at West street Foundry, corner of Beach and West streets. \$23 3m

LAW'S STAVE DRESSING AND JOINTING MACHINE. THIS Machine is now in operation at Mr. William Burdon's, 102 Front st., Brooklyn, every working day, between 9 and 12 A. M.

THE WEST STREET FOUNDRY, corner of Beach and West streets, will furnish at the shortest notice, Steam Engines and Boilers in all their varieties, and on the most reasonable terms, together with castings of brass or iron, and machinery in general.

Lap welded Wrought Iron Tubes FOR TUBULAR BOILERS, From 1 1/4 to 6 inches diameter, and any length, not exceeding 17 feet.

Portable Saw Mill. FOR SALE CHEAP.—A first rate up and down saw, for boards, planks and heavy work, already fitted up with frame, table, fly wheel, &c. Length of saw 4 feet 6 inches. Price for the whole \$60.

Also for sale, a first rate up and down saw for sawing out curves. It is in complete order, already set in frame, with table, fly wheel, band pulley, &c.—Length of saw 2 ft. 6 in. Price for the whole \$25.

They can be sent with perfect safety to any part of the country. Any one wanting either or both the above has only to enclose the amount named and the saws shall at once be forwarded.

MUNN & CO. Scientific American Office, New York.