

G. W. Brown, of Galesburg, Ill., for an Improvement in Seed Planters. Patented Aug. 2, 1853. Antedated Feb. 2, 1853. Re-issued Feb. 16, 1858:

I claim the construction of a shoe or runner for seed planting machines, with an upward inclining edge, and its point sufficiently high or raised so that it will climb up and over, or cut or break through any intervening obstacles without materially forcing the earth laterally at its front part, and widening towards its rear end, so as to open out a gash or furrow in which the seed to be planted may be deposited, and long enough to furnish a support to the frame work substantially as described.

G. W. Brown, of Galesburg, Ill., for an Improvement in Seed Planters. Patented Aug. 2, 1853. Antedated Feb. 2, 1853. Re-issued Feb. 16, 1858:

I claim, in combination with a seed planting machine, constructed principally of frame work, with not less than two runners and not less than two wheels, a hinged joint between the point of the tongue and the rear part of the machine, so that one part of the framework may be raised, lowered, adjusted or supported on the other part, substantially as described.

G. W. Brown, of Galesburg, Ill., for an Improvement in Seed Planters. Patented Aug. 3, 1852. Antedated Feb. 2, 1853. Re-issued Feb. 16, 1858:

I claim a seed planting machine wherein the seed dropping mechanism is operated by hand or by an attendant, in contradistinction from mechanical dropping, the mounting of said attendant upon the machine in such position that he may readily see the previously made mark upon the ground, and operate the dropping mechanism to conform thereto, substantially as set forth.

I also claim, in combination with a seed planting machine composed substantially of framework, and upon which the person who works the seed slides or valves sits or stands, a lever or its equivalent by which a driver or second attendant may raise or lower that part of the framework that carries the attendant and the seeding devices, and thus ease the machine in passing over intervening obstacles or in turning around, substantially as described.

G. W. Brown, of Galesburg, Ill., for an Improvement in Seed Planters. Patented Aug. 2, 1853. Antedated Feb. 2, 1853. Re-issued Feb. 16, 1858:

I claim, first, in combination with a seed planting machine carried mainly by or supported mainly upon not less than two runners and two covering wheels, a pair of auxiliary wheels and an axle for the double purpose of taking a portion of the weight off from said runners and covering wheels, and for affording the means of converting the machine from a hand plow to an automatic seed sower, substantially as set forth.

Second, I also claim hanging the axle of the auxiliary wheels in hinged and adjustable arms or levers so that more or less of the weight of the machine may be placed upon said auxiliary wheels, substantially as described.

Henry Cowing, of Corpus Christi, Texas, for an Improvement in Gang Plows. Patented Nov. 26, 1850:

I claim, first, The combination of the driving shaft, d, and pinions, e, the countershaft, f, and pinions, g, the short shaft, g, and the pinions, i, with the internally geared spur wheels, h, when arranged for operating with plows substantially as and for the purposes set forth.

Second, Raising and lowering the plows substantially in the manner described by an apparatus operated by the power of the engine when the said apparatus is under the control of the engineer.

Third, A projecting frame at the rear of the engine, when the same is arranged to overhang the plows and is sufficiently elevated to permit them to be raised above the axle of the supporting wheels, or the lowest portion of the frame, whereby the engine is enabled to pass over obstructions with facility.

Fourth, The combination in a steam plow of a hoisting apparatus operated by the power of the engine with an overhanging frame, substantially as described for the purposes set forth.

Fifth, The steering apparatus arranged and operating as described, in combination with the frame gearing and plows herein described, for the purpose set forth.

Sixth, The combination of the steering wheel, c, driving wheels, b, overhanging frame, r, and gang of plows, i, f, i, i, i, when arranged and operating substantially as described, for the purpose of cultivating between the rows of standing crops.

Seventh, The combination of the straining frame, n, and adjusting screws, n3, with the hinged side pieces, m2, of the plow frame, substantially as described for the purpose set forth.

Eighth, The ratton or stubble cutter, C (Fig. 5), applied substantially in the manner set forth, in combination with a gang of plows.

Ninth, The plate, y, applied at the lower part of subsoil plow, substantially as explained, for the purpose of elevating the subsoil previous to turning.

J. C. Stoddard, of Worcester, Mass., for an Improvement in Hay Making Machines. Patented Dec. 6, 1859:

I claim, first, The rake head shaft furnished with friction wheels or rollers, which are arranged on pivoted lever bearings in combination with driving wheels, which are furnished with a plain flange for the friction rollers to act against, so that the necessary friction may be produced either by means of the specified lever arrangement, or by the same in combination with the gravity of the rake head, substantially as and for the purpose set forth.

Second, I further claim arranging or setting the bars, N, in the heads, D D, in such a manner that the teeth may be adjusted and given any desired angle by the mechanism and essentially in the manner described.

[This re-issued claim relates to the adjustment of the spreading bars either separately or together.]

EXTENSION.

Elias Howe, Jr., of Brooklyn, N. Y. (formerly of Cambridge, Mass.), for an Improvement in Sewing Machines. Patented Sept. 10, 1846:

I claim, first, The forming of the seam by carrying a thread through the cloth by means of a curved needle on the end of a vibrating arm, and the passing of a shuttle furnished with its bobbin in the manner set forth, between the needle and the thread which it carries, under a combination and arrangement of parts substantially the same with that described.

Second, I claim the lifting of the thread that passes through the needle eye by means of the lifting rod, W, for the purpose of forming a loop of loose thread that is to be subsequently drawn in by the passage of the shuttle, as fully described, said lifting rod being furnished with a lifting pin, u, and governed in its motions by the guide pieces and other devices, arranged and operating substantially as described.

Third, I claim the holding of the thread that is given out by the shuttle, so as to prevent its unwinding from the shuttle bobbin after the shuttle has passed through the loop, said thread being held by means of the lever of clipping piece, g, as herein made known, or in any other manner that is substantially the same in its operation and result.

Fourth, I claim the manner of arranging and combining the small lever, m, n, with the sliding box, M, in combination with the spring piece, Z, for the purpose of tightening the stitch as the needle is retracted, as described.

Fifth, I claim the holding of the cloth to be sewn by the use of a baster plate furnished with points for that purpose, and with holes enabling it to operate as a mack in the manner set forth, thereby carrying the cloth forward and dispensing altogether with the necessity of basting the parts together.

USEFUL HINT TO OUR READERS.

BOUND VOLUMES.—Persons desiring the first volume of the New Series of the SCIENTIFIC AMERICAN can be supplied at the office of publication, and by all the periodical dealers; price, \$1.50; by mail, \$2, which includes postage. The volume in sheets, complete, can be furnished by mail; price \$1. Vol. II is now bound and ready for delivery. The price for this volume is the same as that charged for Vol. I.



CORRESPONDENTS sending communications for publication in our columns are requested to avoid writing on both sides of a sheet of paper. This fault, though common to persons unaccustomed to writing for the press, gives great trouble to the printer (especially in long articles), and, when combined with illegibility of handwriting, often causes interesting contributions to be regretfully consigned to our waste-paper basket.

A. G., of Maine.—Mr. H. has succeeded well with his English and French patents, so we understand. You can procure a valid patent in those countries for any substantial improvement which you may have made. We will attend to the business for you, as we have well established agencies in all European countries. Our business in this department is very large and constantly increasing. We will mail you a circular which contains a synopsis of the foreign laws.

B. S., of Va.—We advise you to send us a sketch and description of your alleged improvement in tobacco-cutting machines, and we will make a careful preliminary examination into its novelty. This will be conducted at the Patent Office, and if there is anything in the way of your success, we shall be most likely to discover it. This examination will cost but \$5, and will generally inform you of your prospects. We charge no fee for an opinion without this examination at the Patent Office.

T. W. C., of La.—Through the lower strata of the atmosphere, the temperature diminishes at the rate of one degree for every 352 feet of perpendicular ascent.

E. B., of Pa.—If a society should be formed for experimenting with flying machines, your suggestion to measure the power required to raise a given weight by means of wings or fans will doubtless be adopted.

J. B. K., of Ill.—It seems to us that the patent laws in combination with the free institutions of the country are the best means for supplying farmers and others with good implements, at fair prices.

S. J., of N. Y.—The Fair of the American Institute will be held at Palace Gardens, corner of Fourteenth-street and Sixth-avenue, on the 25th inst. It is devoted wholly, this year, to horticulture.

T. P., Jr., of Ga. and Y. S., of Somerville.—A little energy will enable you to find a man who will carry out your invention, if it will do what you say it will. Try the sharpest and hardest money maker in your neighborhood. The expansion question we shall soon open fully to discussion.

J. S. C., of S. C.—We do not discover the slightest novelty in your proposed plan for constructing balloons. If you have access to Vol. I, (old series) of the SCIENTIFIC AMERICAN, you will find the same old cigar-shaped balloon such as you now propose. The only objection to it is that it cannot be made to work. If you can get over this obstacle, your theories will be realized.

G. W., of Pa.—The red balls of sumac are gathered in August. Sicily sumac is now quoted at \$70 to \$80 per ton.

E. J. W., of Iowa.—The force of gunpowder varies much with the quality. In some experiments the pressure was found to be 25,000 pounds to the square inch. It has been so strongly confined as to be burnt without explosion. A solid beam will support more weight than a hollow one of the same size.

S. F. F., of Mich.—We know of no prepared glue which is as strong as the ordinary kind applied when hot.

L. M. C., of Ind.—There are several modes of silver plating. Plated ware is made by first plating the metal, and then fashioning it into vessels, in which case the silver is soldered to the base metal in a furnace. On smooth articles, like door knobs, the silver is soldered by passing a hot iron over it, which melts the solder by transmitting the heat through the silver plate. All sorts of articles are also plated by the galvanic process.

R. B. W., of Ill. The liquor employed by goldsmiths to color their trinkets is made by dissolving 1 part of sea salt, 1 part of alum, and 2 parts of niter in 3 or 4 parts of water. J. E. Stevenson's turbine—manufactured at the Novelty Iron Works (this city)—is the one which yielded the best results at the experiments in Philadelphia.

H. D., of N. Y.—You will find an explanation of near-sightedness in almost any of the school books on Natural Philosophy. We know of no cure; you must be content with spectacles.

J. P. H., of Va.—The "cold solder" (copper amalgam) is worth a trial for the purpose you name. When two metals in contact are put into strong salt or acid solutions, the whole becomes a galvanic battery, and the more positive metal dissolves. Solder for metallic vessels which contain corrosive liquids should be as nearly as possible like the mass of metal.

R. P., of Texas.—We have seen pieces of wrought and cast iron soldered by the Franklinite pig metal. It makes a close and strong joint. The flat seam, for tin roofs, is most common here.

A. F. O., of Ky.—If you boil, in a glass or porcelain vessel, a quart of your water, which you suspect contains lead, down to four ounces, and then add a drop of sulphide of ammonium, and the water retains its clearness, you need have no fear. If lead be present, the water will become turbid, and, in a short time, a black powder will settle to the bottom, from the amount of which you may determine how much lead was originally in the water.

C. T. P., of Wis.—Your failure to make gold stick to leather appears to be a fault of manipulation, which you will overcome by thought and practice. When the sizing is in the proper state of stickiness and the tool used is of the proper temperature, you should have no difficulty. We know of no work which treats specially of the coloring of leather. Dyestuffs will color leather about the same as cloth.

J. C., of N. Y.—We are doubtful about the novelty of your improvement, and advise a preliminary examination to be made at the Patent Office. This we can do, by receiving from you a fee of \$5. There are a great many inventions in this class, as you are doubtless aware.

C. C., of Pa.—You will find that green goggles will protect your eyes while looking into the muffle of a dental furnace. It is generally understood that green glasses are the best to screen the eyes from dazzling light.

J. W. T., of Ohio.—Cyanide of potassium is poisonous, chiefly by virtue of hydrocyanic or prussic acid which is spontaneously generated from it; and as this acid is volatile and penetrates to all parts of the system, immediately, there can be no such certain antidote for it as oxyd of iron is for arsenic. Sulphate of iron would be an antidote, provided the supposition you make is true, but it is not.

P. L., of N. Y.—Your arrangement for navigating the air seems to be quite ingenious, but it contains but very little novelty. Similar arrangements have been shown to us before.

MONEY RECEIVED

At the Scientific American Office on account of Patent

Office business, for the week ending Saturday, Sept. 15, 1860:—
J. S., of Pa., \$30; S. M. G., of Vt., \$30; R. S., of N. J., \$30; W. H. R., of Fla., \$55; S. T. H., of Mich., \$25; P. H., of Mass., \$60; B. R. H., of Cal., \$25; J. H. F., of Cal., \$75; T. B. J., of Ill., \$32; G. S. A., of Pa., \$30; J. H. C., of N. Y., \$25; H. S. W., of R. I., \$30; A. A., of N. Y., \$20; E. D. M., of N. J., \$12; J. H. H., of Ky., \$25; S. W., of Fla., \$25; C. C., of Mich., \$30; J. B. C., of Ohio, \$20; J. B. S., of Conn., \$30; J. A., of Conn., \$25; S. & S., of Pa., \$35; J. H. G., of N. H., \$25; E. B. C., of Fla., \$25; E. W. F., of La., \$5; J. T. H., of Miss., \$25; G. N. C., of Conn., \$25; G. & S., of Ohio, \$30; H. B., of N. Y., \$30; N. S., of Ill., \$25; N. S. M., of Conn., \$45; J. C., of Minn., \$30; W. E. F., of Mo., \$25; W. J. & C., of Ohio, \$30; H. B. J., of N. J., \$30; J. P. A., of Ga., \$30; J. W. C., of Ind., \$30; L. & V., of N. Y., \$107; A. G. A., of N. Y., \$250; J. B. P., of Miss., \$5; L. A. B., of N. Y., \$30; T. J. F., of Ill., \$30; H. S., of Ohio, \$25; O. P., of N. Y., \$110; J. C., of N. Y., \$140; S. & M., of N. Y., \$30; T. J. S., of Ga., \$30; D. B. B., of Pa., \$30; C. H., of La., \$30; J. C. C., of N. Y., \$100.

Specifications, drawings and models belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Sept. 15, 1860:—

N. S. M., of Conn.; N. S., of Ill.; W. E. F., of Mass.; J. W. H., of N. C.; S. L. B., of S. C.; D. E. T., of N. Y.; D. & W. B., of Iowa; J. T. E., of N. Y.; J. C., of N. Y.; H. S., of Ohio; J. A., of Conn.; F. & J., of N. Y.; J. T. H., of Miss.; G. N. C., of Conn.; W. C., of Iowa; E. B. C., of Fla.; J. H. G., of N. H.; C. H., of La.; S. S., of Pa.; E. M. F., of La.; A. E. T., of La.; G. S., Jr., of Maine; W. H. R., of Fla.; H. S., of Mich.; E. D. M., of N. J.; J. H. H., of Ky.; S. W., of Fla.; J. E. A., of Ill.; R. S., of N. J.; A. H., of N. Y.; J. C., of Iowa; A. J. G., of Mass.; S. W., of Vt. (3 cases); J. H. F., of Cal.; J. H. C., of N. Y.; J. E. S., of Maine.

IMPORTANT TO INVENTORS.

THE GREAT AMERICAN AND FOREIGN PATENT AGENCY.—Messrs. MUNN & CO., Proprietors of the SCIENTIFIC AMERICAN, are happy to announce the engagement of HON. CHARLES MASON, formerly Commissioner of Patents, as associate counsel with them in the prosecution of their extensive patent business. This connection renders their facilities still more ample than they have ever previously been for procuring Letters Patent, and attending to the various other departments of business pertaining to patents, such as Extensions, Appeals before the United States Court, Interferences, Opinions relative to Infringements, &c., &c. The long experience Messrs. MUNN & Co. have had in preparing Specifications and Drawings, extending over a period of fifteen years, has rendered them perfectly conversant with the mode of doing business at the United States Patent Office, and with the greater part of the inventions which have been patented. Information concerning the patentability of inventions is freely given, without charge, on sending a model or drawing and description to this office.

Consultation may be had with the firm, between NINE AND FOUR o'clock, daily, at their PRINCIPAL OFFICE, NO. 37 PARK ROW, NEW YORK. We have also established a BRANCH OFFICE in the CITY OF WASHINGTON, on the CORNER OF F AND SEVENTH STREETS, opposite the United States Patent Office. This office is under the general superintendence of one of the firm, and is in daily communication with the Principal Office in New York, and personal attention will be given at the Patent Office to all such cases as may require it. Inventors and others who may visit Washington, having business at the Patent Office, are cordially invited to call at their office.

They are very extensively engaged in the preparation and securing of Patents in the various European countries. For the transaction of this business they have Offices at Nos. 66 Chancery Lane, London; 29 Boulevard St. Martin, Paris, and 26 Rue des Eperonniers, Brussels. We think we may safely say that three-fourths of all the European Patents secured to American citizens are procured through our Agency.

Inventors will do well to bear in mind that the English law does not limit the issue of patents to inventors. Any one can take out a patent there.

A pamphlet of information concerning the proper course to be pursued in obtaining patents through their Agency, the requirements of the Patent Office, &c., may be had gratis upon application at the Principal Office or either of the Branches. They also furnish a Circular of Information about Foreign Patents.

The annexed letters, from the last three Commissioners of Patents, we commend to the perusal of all persons interested in obtaining Patents:—

Messrs. MUNN & Co.—I take pleasure in stating that while I held the office of Commissioner of Patents, MORE THAN ONE-FOURTH OF ALL THE BUSINESS OF THE OFFICE CAME THROUGH YOUR HANDS. I have no doubt that the public confidence thus indicated, has been fully deserved as I have always observed, in all your intercourse with the Office, a marked degree of promptness, skill and fidelity to the interests of your employers. Yours, very truly,
CHAS. MASON.

Immediately after the appointment of Mr. Holt to the office of Postmaster-General of the United States, he addressed to us the subjoined very gratifying testimonial:—

Messrs. MUNN & Co.—It affords me much pleasure to bear testimony to the able and efficient manner in which you have discharged your duties of Solicitors of Patents while I had the honor of holding the office of Commissioner. Your business was very large, and you sustained (and, I doubt not, justly deserved) the reputation of energy, marked ability and uncompromising fidelity in performing your professional engagements. Very respectfully,
Your obedient servant,
J. HOLT.

Messrs. MUNN & Co.—Gentlemen: It gives me much pleasure to say that, during the time of my holding the office of Commissioner of Patents, a very large proportion of the business of inventors before the Patent Office was transacted through your agency, and that I have ever found you faithful and devoted to the interests of your clients, as well as eminently qualified to perform the duties of Patent Attorneys with skill and accuracy. Very respectfully,
Your obedient servant,
WM. D. BISHOP.

Communications and remittances should be addressed to
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