

27,190.—Wm. H. Lauback, of Philadelphia, Pa. (assignor to himself and D. C. Enos, of same place), for an Improvement in the use of Hydro-carbon Vapor for Illumination:

I claim forcing into and through the distributing pipes hydro-carbon vapor, at such a high temperature that no condensation of the vapor can take place in the said pipes, when the latter are so arranged that no closing of the burners can obstruct the free circulation of the heated vapor throughout every portion of the said distributing pipes as and for the purpose set forth.

27,191.—Isaac P. Lykens, of Pottsville, Pa. (assignor to himself and Wm. Bickel, of same place), for an Improvement in Machinery for Breaking Coal:

I claim, first, The reciprocating spiked plates, I, and the spiked bars, N, in combination with the chutes, Q, and their movable doors, q; the whole being arranged and operating substantially as set forth. Second, Attaching the bars in such a manner that the position of the said spikes may be altered at pleasure, the bars themselves being likewise so secured as to admit of ready adjustment, in the manner and for the purpose specified.

Third, The spring, M, arranged in respect to the spiked plate, I, and the spiked bars, N, as and for the purpose set forth.

27,192.—David Nicholson, of Lockport, N. Y. (assignor to himself and Charles R. Fox, of same place), for an Improved Method of Feeding the Bolt to the Knife in Shingle Machines:

I claim, first, Constructing the racks, R, R, of two toothed longitudinal parts, v w, so arranged as to be capable of adjustment one with the other, for the purpose of varying the taper of the shingles and sawing "stuff" of equal thickness throughout when desired.

Second, The arrangement of the racks, R, R, slides, S, T, connected by the lever, U, and the slotted slides, M, N, operated by the lever, O, and crank, a', and fitted in the bar, L, substantially as shown, for the purpose of actuating the racks, R, R.

27,193.—Enos B. Phillips, of Cambridgeport, Mass. (assignor to himself and Charles W. Phillips, of same place), for an Improvement in the Manufacture of Skates:

I claim, as a new article of manufacture, a skate cast from the described composition metal, substantially as set forth.

27,194.—James Spear, of Philadelphia, Pa. (assignor to himself and D. C. Enos, of same place), for a Post-office Stamp:

I claim, first, Constructing a stamp or die with letters, the outline of which is composed of fine points, constructed in the manner and for the purpose described.

Second, I claim stamping letters so that the letter, as well as the envelope, will bear the post-office mark in a distinct manner, as described.

RE-ISSUE.

George Westinghouse, of Schenectady, N. Y., for an Improvement in Endless Chain Horse-powers. Patented June 13, 1854; re-issued July 10, 1855; again re-issued Feb. 14, 1860:

I claim, first, The combination of the straight links, c, and odd links, i, when constructed, arranged and operating as described. Second, The combination and arrangement of the hubs or pinions, m, m', with the band and driving wheels, as described, for the purposes.

DESIGNS.

Elemer J. Ney, of Lowell, Mass. (assignor to the Lowell Manufacturing Company, of Lowell, Mass.), for a Design for Carpet Patterns.

William W. Stevens, of Portland, Maine (assignor to N. P. Richardson & Co., of same place), for a Design for a Cooking Stove.

N. S. Vedder, of Troy, N. Y., for a Design for a Parlor and Cook Stove.

N. S. Vedder, of Troy, N. Y., for a Design for a Parlor Stove.

Leonard W. Volk, of Chicago, Ill., for a Design for Statuette of Stephen A. Douglas.

Notes & Queries

W. M. M., of Ill.—We published a series of illustrated articles on artesian wells in Vol. VIII (old series) of the SCIENTIFIC AMERICAN.

F. N. C., of Mich.—We gave the information about soaps on page 3, present volume of the SCIENTIFIC AMERICAN, just as it was in the patent.

H. G., of Ohio.—The specimen of ore which you have sent us appears to be alumina, and may contain sufficient metal to render the smelting of it profitable; this, however, can only be determined by experiment.

W. B., Jr., of N. Y.—No mirror can form an image in the atmosphere. Some person must have given you wrong information on the subject.

W. J., of Ky.—Measure the amount of water that flows from your spring by the rule which we gave in our last number, and you will be able to form a very good opinion whether it will be an object for you to get one of Tyler's wheels, or not.

F. K., of Pa.—The ink powder which you have sent us is composed of extract of logwood and the bi-carbonate of potash.

E. H. R., of Mass.—Steam has been applied as a motive power by injecting it into a box containing a wheel, which was thus made to revolve. An engine of this character was exhibited in this city about ten years ago.

J. W. P., of Mass.—Percussion powder for caps is made with both fulminating quicksilver and chlorate of potassa; the former is the better. It is ground to fine powder with water on a marble slab by a wooden roller; then mixed with equal parts of saltpeter and a little resin varnish, and is thus dropped into a cap. It is a dangerous agent to operate with. You must be very cautious in using it.

C. W. C., of N. Y.—In making telescopes the glasses are adjusted to each other by practical experiment. They are placed temporarily in a tube, and when the proper positions are found, the places are marked and then the glasses are permanently secured. J. Prentice, No. 66 Nassau-street, will give you practical directions in this matter. He is an old established and respectable optician.

R. C., of Ill.—You propose to store up power by a windmill by raising weights to a certain elevation, to be afterwards employed when there is not a sufficient amount of wind to operate the wheel. A more simple plan has oftentimes been proposed to us, namely, to pump up water into a reservoir, by a windmill, when there was plenty of wind, then use the water to drive a wheel when there was no wind to drive the mill. In some situations, we might use this plan, and we advise you to adopt it in place of using such a clumsy substitute in the form of elevated weights.

E. J., of Ohio.—Your directions for cutting elbows for stove pipes would be valuable if we had not already given one that answers the purpose.

J. R. W., of Iowa.—By a communication in another column you will see that the parallelism of the cracks which you observed in the frozen mud, was owing to some local cause. It is curious that they should be thus parallel over even a very small district.

D. W. B., of Conn.—We think the objections to galvanized iron for conveying water to a house are less powerful than the objections to lead. But we have seen such dreadful effects from metallic poison, and have found the cement pipes so perfect, that we recommend them in all cases where they can be used.

J. N. V. L., of Va.—We have received your theory in regard to the aurora borealis and examined it, but we do not believe that it would be as interesting to our readers generally as it is to you. We suppose men's theories are very much like their children, or their investigations, matters of interest to themselves, but decided lores to other people. Your theory is as likely to be correct as that of some of the learned savans, and this probability we should estimate, in the present state of human knowledge, at about one in 10,000,000,000.

R. C. M., of C. W.—There are steam gages for measuring the pressure in pounds per square inch in the boiler, but no gage can give the horse-power of the engine.

F. P., of Iowa.—A bill has been introduced into our legislature with a provision similar to the one which you recommend for preventing persons being burnt in the buildings. This plan of iron stairs in the rear, outside, seems to be very judicious.

D. H. C., of Mass.—We suppose you refer to Shepard's motor. The fall must be sufficient for the water to rise in the pipe by its momentum from the velocity of the current.

E. B., of N. Y.—The Atlantic cable was very imperfectly constructed, and it was too small for practical purposes. Several patents have been obtained in the United States for submarine cables. We believe that a cable may be constructed and laid in the ocean to operate satisfactorily, but the messages would necessarily be slow in passing.

C. W. D., of S. C.—Any turbine, set upon a horizontal shaft and revolving with a high velocity, may give out as much power as a common tub wheel, but such an arrangement cannot affect the question of economizing the water, which is the important item with you. We advise you to get the best turbine wheel possible for your fall, irrespective of the conditions of being hung either on a vertical or horizontal shaft.

Money Received

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, Feb. 18, 1860:—

- T. D. C., of N. Y., \$55; L. C. R., of N. J., \$30; D. M. S., of Vt., \$30; J. B., of Del., \$30; H. G., of La., \$35; L. R. S., of Mich., \$30; S. D., Jr., of S. C., \$30; M. & M., of N. Y., \$30; J. S., of Mass., \$31; G. K. B., of N. Y., \$30; J. C., of N. Y., \$30; I. N. R., of Iowa, \$35; W. & P., of N. Y., \$30; B. W. T., of N. Y., \$35; S. M. W., of Mich., \$25; D. L. M., of N. J., \$35; D. H., of Ill., \$30; A. H., of N. Y., \$30; C. P., of N. Y., \$35; G. W. G., of N. Y., \$25; C. P., of N. Y., \$35; F. H., of N. Y., \$40; J. P., of Pa., \$25; H. W., of N. Y., \$57; E. B., of Conn., \$55; B. E. O., of Ill., \$35; T. H. G., of Wis., \$30; B. & F., of Pa., \$35; F. F., of N. Y., \$30; J. O. G., of Conn., \$30; W. B., of N. Y., \$30; A. H., of Md., \$25; R. H. F., of Pa., \$25; J. C. C., of Conn., \$30; J. W. C., of Maine, \$25; M. M., of Md., \$30; D. E., of Ill., \$35; A. H., of Ohio, \$30; M. & M., of N. Y., \$30; J. L. H., of N. Y., \$25; J. T. L., of L. I., \$10; J. B. T., of Ill., \$30; A. & L., of Conn., \$250; J. B. L., of Tenn., \$30; E. C. S., of Md., \$55; G. W., of N. Y., \$35; J. A. C., of Conn., \$15; N. H. H., of Wis., \$30; N. & H., of N. J., \$25; O. S., Jr., of Iowa, \$25; E. & D., of Mass., \$30; S. & L., of N. Y., \$30; C. W. R., of Ga., \$30; C. & B., of N. Y., \$30; A. E. D., of Ill., \$25; W. S., of N. Y., \$30; W. G., of Ohio, \$30; G. M., of Conn., \$30; W. H. S., of Conn., \$35; C. P. B., and others, of Conn., \$25; F. W., of N. Y., \$25; W. B. & R. B., of N. Y., \$12; A. B. S., of La., \$35; J. C., of Conn., \$10; F. T., of Ill., \$30.

Specifications, drawings and models belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Feb. 18, 1860:—

- F. W., of N. Y.; J. L. H., of N. Y.; W. J. B., of Pa.; G. W. G., of N. Y.; J. P., of N. J.; N. H. H., of Wis.; H. G., of La.; J. N. R., of Iowa; F. H., of N. Y.; B. W. T., of N. Y.; C. & W., of N. Y.; C. P., of N. Y.; G. W. G., of Conn.; J. A. C., of Conn.; J. S., of Mass. (2 cases); B. E. O., of Ill.; H. W., of N. Y.; E. B., of Conn.; J. T. L., of L. I.; S. M. W., of Mich.; G. W. R., of N. Y.; C. B. M., of N. Y.; S. B. D., of N. Y.; M. S. S., of N. Y.; W. B. & R. B., of N. Y.; N. & H., of N. J.; R. A. S., of N. Y.; E. C. S., of Md.; C. P. B. and others, of Conn.; W. H. S., of Conn.; R. H. F., of N. J.; J. W. C., of Maine; A. E. D., of Ill.

Literary Notices.

CENTENNIAL BIRTHDAY OF ROBERT BURNS. Edited by J. Cunningham; published by Lang & Laing, 170 Fulton-street, this city.

This is the title of a neat little volume containing the oration of Rev. Henry Ward Beecher and all the eloquent speeches delivered at the Astor House, by the Burns Club, on the 25th of January, 1859. It also contains several beautiful poems on the genius of Burns. Whittaker's tribute is a gem; but towering above them all is the Baltimore prize poem of Thomas Frazer, a mechanic of Newark, N. J. It is written in the Scottish doric, with the swing and pathos of a true poet.

NEW HAMPSHIRE JOURNAL OF EDUCATION. Published by the State Teachers' Association, Concord, N. H. We have received the second number of Vol. IV. of this neat publication, and are pleased to see that it is sustained. The mechanical and commercial prosperity of the country, as well as the maintenance of our free institutions, depends upon the education of the people. It is altogether the most important interest we have.

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. JUDGE 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 fourteen 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 this 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 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 two 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 following very gratifying testimonial:—

Messrs. MUNN & Co.:—It affords me much pleasure to bear testimony to the able and efficient manner in which you discharged your duties as 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.

Communications and remittances should be addressed to MUNN & CO.

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