# Scientific American.



B. R. McC, of Pa.-We really do not know the pres sure on the wind-chest of the automaton clarionet play We never thought of making the inquiry. Youstate the object of the Sci. Am, correctly, viz., "to popularize science in all its branches."

A. K. R. of Ohio-In Vol. 9, Scr. Am., there is a series of articles on all kinds of water wheels. We have seen a number of water wheels operating on the same principle as the sliding piston rotary steam engine. They give an average of 60 per cent. of the stated power.

J. A. S., of Phila. - Sofar as we know, the expansibility of aluminum from 32 to 212 degs. Fah., has not been determined, but it cannot be much.

A. L. & W. E. I., of Pa.—There is no power in a water wheelitself; the power is the water. Over a fall of 26 feet with an area of 36 inches inlet opening, 1548 cubic inches fall per second-not quite two horse power. You surely have made a mistake respecting the size of the

opening.

X. Y. Z. of Vt.—Correspondents who expect attention to their letters must sign their names to them. When we take up a letter which has not the writer's name attached we always cast it into the waste basket. It is not courteous to ask a favor of any one without giving your

J. L. H., of N. Y .- Robert DeWitt, of this city, is nov publishing Ranlett's Street Architect. He can also furnish you with Ranlett's Cottage Architecture. Address him at 150 Nassau street.

H. M. P. of N. Y.—A spiral grooved feed roller is no patentable. We think such a spinning machine as you

W. R. Jr. of Pa.-There is no difficulty in connecting the front and back driving wheels of a locomotive by Whitegreave's method, to make them work in harmony R. O. of C. W .- An over-shot wheel would be far bet

ter for your purpose than the wheels to which you refer W. M. A. of Ohio.—Will you describe the uses of your syphon more fully, also its object? The subjectis of general interest. A syphon is of no use for mines over

J. M. B. of N. Y.—The plan you propose for a susp-sion bridge over the East River has been suggested

D. S. H. of - Address Douglass & Sherwood, 343 Broadway. We do not know of any othe manufacturers of hoop skirts, although, no doubt, there are many others James M. Ross, of Pictou, Nova Scotia, wishes to obtain

a power drill for working in quarries.

J. W. B. of Pa.—We should be glad to give you the information you want in regard to the best method of pre-paring the wood for the bending trame, but we do not think of anything that would be usefulto you in this re-

M. B. C. of Mass.-Stove pipemade of cast iron migh

have screw joints.
C. S. of C. W.—We are not acquainted with any substitute that can be used to take the place of molasses in the manufacture of printer's rollers; many things have been tried, but none have been successful. The molasses you obtain are the drainings of crystalized sugar; this is the reason why the molasses crystalizes when concentrated, and why it will not answer for rollers. It is our opinion that if you mix some Canadian balsam with you molasses it will not crystalize, and thus it may serve for manufacturing printer's rollers as well as West India molasses.

T. \_\_\_\_ of Pa. \_ There was an Association of Civil Engineers formed in this State about eight years ago, but it only existed, we think, about two years. It promised well when it started. There is no Association of Engineers in our country like that in England.

D. S. of Conn.-The work on Draughting isforsale by Blackie & Sons, 117 Fulton st., N. Y. Price \$1050.

J. M. of Pa.—We are not acquainted with any single

work on gunpowder, statistical or otherwise, appertaining to its use and manufacture in our country.

M. Λ. A. S., of Ohio.—We have received your sam

ples of slate colors dyed on cotton, and the description of the method of dyeing them. We cannot advise you to apply for a patent; the same color can be dyed cheap-

er by methods in common practice.

C. J. N. of Me.—Another correspondent has taken up the subject of seeing the satellites of Jupiter with a looking-glass. Do not be so officious in giving advice without knowledge of subjects.

J. H. of Ohio.—The water in Artesian wells rises to

the surface and overflows. Address Welton, Stearns & Holmes, Artesian well engineers, Charleston, S. C. W. do not know the cost of apparatus for boring such wells. E. B. of Ohio.—Inflammable gases can easily be ignited

Y. N. of N. Y.—The term "Minie rifle" is incorrect it is the Minie ball which allows of muskets being rifled

L. M. F. of N. Y.—Calculate the expense of a tunnel

under the East River before you propose it publicly.

O. S. H. of N. J.—A circular saw of 3 feet diameter can be run at the rate of 200 revolutions per minute as easily as an 18-inch. saw 400 revolutions per minute. We cannot tell you what speed of saw teeth is most effective. Different kinds of timber require different velocities of the saw; there is no general rule. Sawvers differ much in opinion regarding the best speed for saws

Money received at the Scientific American Office

mination.

Private consultations respecting the patentability of inventorary and account of Patent Office business for the week ending Eaturday, Jan. 3, 1857:—

J.T. of Pa. \$25; J. & K. of Mass. \$5; J. F.P. of N. Y. \$20; G. L. W. of N. H. \$27; P. E. of Ala. \$20; G. M. M. of Ct. \$30; J. W. of N. H. \$27; P. E. of Ala. \$20; G. M. M. of Ct. \$30; J. W. of N. J. \$30; J. W. S., of N. J. \$30; J. H. L., of Vt. \$40; A. W. of N. J. \$30; E. R. C. of N. C. \$30; A. B. of N. Y. \$50; S. P. F. of N. B. \$40; W. H. McN. of N. Y. \$100; E. H. H. of Ga. \$25; C. & S. of N. Y. \$305; B. A. H. of N. Y. \$12; J. W. H. of R. I. \$50; J. H., Jr., of N. Y. \$180; B. T. B. of N. Y. \$55.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Jan. 3, 1857:—

G. T. W. of O.: P. E. of Ala.; J. F. P. of N. Y.; J. of Pa.; J. & K. of Mass.; G. L. W. of E. H., E. Q. S. of O.: E. H. H. of Ga.; J. P. of Tex.; B. A. H. of N. Y.: P. C. of N. Y.; P. H. of Ill.; W. W. D. of Cuba, J. W. H. of R. I.; J. H. Jr., of N. Y. (2 cases); B. T. B. of N. Y. Office 128 Fulton street, New York.

#### Important Items.

GIVE INTELLIGIBLE DIRECTIONS—We often receivelet ters with money enclosed, requesting the paper sent for the amount of the enclosure but no name of State given and often with the name of the post office also omitted. Persons should be careful to write their names plainly when they address publishers, and to name the post of fice at which they wish to receive their paper, and the State in which the post office is located.

FOREIGN SUBSCRIBERS—Our Canada and Nova Scotia patrons are solicited to compete with our citizens for the valuable prizes offered on the next volume. [It is important that all who reside out of the States should remember to send 25 cents additional to the published rates for each yearly subscriber-that amount we are obliged to pre-pay on postage.]

COMPLETE SETS OF VOLUME XII EXHAUSTED.—We regret that we are no longer able to furnish complete sets of the present volume. All the back numbers except 1, 2,6, 9, 10, 11, and 13, we can yet furnish, if new subscribers desire to commence back to the beginning of the volume; but unless they specially request to the contrary when making their remittance we shall commence their subscription from date of receipt of the

ways enclose the express receipt, showing that the transit expenses have been prepaid. By observing this rule we are able, in a great majority of cases, to prevent the collection of double charges. Express companies, either through carelessness or design, often neglect to mark their paid packages, and thus, without the receipt to confront them, they mulct their customers at each end of the route. Look out for them.

PATENT LAWS AND GUIDE TO INVENTORS.—This pam phlet contains not only the laws but all information touching the rules and regulations of the Patent Office. Price 12 1-2 cents per copy. A Circular, giving instructions to inventors in regard to the size and proper construction of their models with other useful informa tion to an applicant for a patent, is furnished gratis at this office upon application by mail.

RECEIPTS—When money is paid at the office for subscrip tion, a receipt for it will always be given; but when sub-scribers remit their money by mail, they may consider the arrival of the first paper a bona fide acknowledge ment of the receipt of their funds.

PATENT CLAIMS-Persons desiring the claim of any in vention which has been patented within fourteen years can obtain a copy by addressing a letter to this office stating the name of the patentee, and date of patent when known, and enclosing \$1 as fee for copying

#### Literary Notices.

REPRINTS OF THE BRITISH REVIEWS.—Messia, Leonard Scott & Co., No. 54 Gold, st., this city, publishes the four famous British Reviews—the Edinburgh, London, Westminster, and North British—also Blackwood's Magazine. These Re iews and Old Ebony present to American readers the very cream of British literature. To be intelligent of what is doing by the ablest writers of the Old World, no man can afford to dispense with these periodicals. They are exponents of the opinions, tastes, and the talents of British authors. Blackwood's Magazine is Tory in politics, but its literary character, independent of its politics, is unequalled. The Edinburgh Review is Whig, in contradistinction to Tory. Its reputation is world-wide. The North British is the organ of the Scottish Free Church. It is learned, progressive, and liberal The London Quarterly was established to counteract the influence of the Edinburgh. It represents ultraviews of politics and religion. The Westminster commenced as ultra radical, but it is now called liberal. John Chapman, the American publisher in London, is at its head. These four Reviews and Blackwood are \$10 per annum. This is an excellent time to subscribe.

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PARLOR DRAMAS FOR HOME AMUSEMENT.—This is the title of a very amusing little volume, by W.B. Fowle, published by Morris Cotton, Boston, and for saleby J. M. Fairchild, 109 Nassau street, this city. Itsauthor has great powers of descriptive dialogue. It is a volume which, taken up at any moment; any of its pages, selected at random for reading, will shake the cobwebs of carefrom the corners of the mind.

NOW OR NEVER-THE ADVENTURES OF BORRY BRIGHT-By the author of "Oliver Optics,"—who writes with his optics open—is the story of a noble boy who never would tell a lie, and whose life is a fine example for imitation. It is a moral and well written tale. For sale by Leavitt & Allen, this city. Published by Brown, Ba zin & Co., No.94 Washington street, Boston.

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Private consultations respecting the many constants.

amination.

Private consultations respecting the patentability of in-

TO ARCHITECTS—A premium of \$250 will be paid for the best, and one of \$100 for the second best plan, with specifications, for the college edifice for the New York State Agricultural College, to be built at Ovid, Seneca county, the coming season. There will be required a Culinary Department, in all its details, a Dining Hall and Laundry, to accommodate from 300 to 400, a Lecture Room, capable of seating 400 to 500, and accommodations for the steward and his family in the basement. In the first story will be required a President's Reception Room and an Office, five Professors' Rooms, for the steward and his family in the basement. In the first story will be required a President's Reception Rooms a Library, and a Chemical Laboratory Recitation Rooms, a Library, and a Chemical Laboratory large and well lighted. The residue of the first and the three stories above, to be appropriated for Student's Rooms of Dormitories, not less than 175 in number, and not less than 16thetin the clear, with a bed, room connected; the rooms lighted with one large window; hallsnot less than 10 feet in the clear, with stairways to approach them. Building to be four stories above the basement. Plans for heating, ventilating, and lighting in the most approved modern manner will be expected. The walls to be of stone or brick. If of stone, to be laid in courses rough hammered, corners suitably dressed, water tables, window caps and sills, cut; stone delivered on the spot for about \$250 to \$275 per club cy and, mainly shaped for laying. Cut stone ah igher price. A suitable front doorway of stone, with a cap of suitable depth to receive an appropriate design, with stone steps to reach it; all to be done in a plain, but neat and substantial manner, and with the strictest economy. Cost to be estimated. Plans and specifications to be completed and sent to J. P. Johnson Esq., State Agricultural Rooms, Albany, N. Y., on or before the 10th of February next. The subscriber may be referred to, if desired, at Waterford, Saratoga county, N. Y. S. CHEEV

December 22d, 1856.

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their cost of construction and necessary waste of power
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other engine of the same value. This last consideration
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