

invention from the records in their Home Office. But for a fee of \$5, accompanied by a model, or drawing and description, they have a special search made at the United States Patent Office, and a report setting forth the prospects of obtaining a patent, &c., made up and mailed to the inventor, with a pamphlet, giving instructions for further proceedings. These preliminary examinations are made through the Branch Office of Messrs. MUNN & CO., corner of F. and Seventh streets, Washington, by experienced and competent persons. Many thousands of such examinations have been made through this office, and it is a very wise course for every inventor to pursue. Address MUNN & CO., No. 37 Park Row, New York.



D. B., of Ill.—The first thing to be done is to have your alleged infringer's plow examined and compared with the claims in your Letters Patent by a patent lawyer, and if the parties are infringing your claims it will be his duty to warn them of the infringement and summon them to appear and pay damages for infringing, buy a license and stop manufacturing; and if they do not regard your threat, get out an injunction to restrain them.

J. L., of N. Y.—Petroleum is a mixture of various hydro-carbons, and probably no two specimens have the several chemical compounds mixed in the same proportion. In the process of purification the more volatile substances are separated, and these are called benzine. As benzine is composed of a number of hydro-carbons mixed in various samples in different proportions, there is no fixed boiling point common to all the samples.

O. H. K., of N. Y.—Sulphate of soda may be decomposed by carbonate of lime and charcoal with intense heat, but your best plan will be to buy a pure article.

C. H. P., of Mass.—Articles of iron may be covered with copper by dipping them in a solution of sulphate of copper.

D. R., of R. I.—It is our opinion that very few of our readers are interested in the discussion of questions in pure mathematics.

F. A. W., of Mass.—King's "Notes on the Steam Engine" is a very useful and practical book for engineers.

P. S., of Pa.—We do not know of any machine in the market capable of dropping potatoes.

W. A. V., of N. H.—You can have the powder which you send us analyzed for \$15.

F. T., of N. Y.—Butter is one of the organic products that has never been produced by art.

C. R. W., of Ind.—We are informed by Prof. Seely that there are no stereoscopes yet for sale in market.

T. J. F., of Texas.—There are no two liquids known which will ignite by simply being brought in contact. There are liquids which on being brought in contact with certain solids will generate sufficient heat to create flame. Water poured on lime in sufficient quantity will set wood on fire.

A. W. H., of N. Y.—Aluminum bronze is an alloy of 90 parts of copper with 10 of aluminum. You can get aluminum of J. F. Lohme & Co., 556 Broadway, this city, and perhaps aluminum bronze and Aich metal.

Money Received.

At the Scientific American Office, on account of Patent Office business, from Wednesday, April 6, 1864, to Wednesday, April 13, 1864:—

- R. A. V., of N. Y., \$25; J. F. C., of N. Y., \$50; E. T. S., of N. Y., \$20; F. S. G., of N. Y., \$16; A. E. H., of N. Y., \$45; E. S. H., of N. J., \$20; W. G., of Ind., \$20; A. O., of N. J., \$16; J. D., of Canada, \$12; H. D., of Ohio, \$45; J. W., of N. Y., \$16; O. W., of N. Y., \$20; J. F., of N. J., \$16; L. G. K., of Mass., \$16; R. B. W., of Ohio, \$25; A. I. A., of Ill., \$16; S. T., of Ohio, \$20; C. B., of Ind., \$50; P. & B., of Pa., \$25; E. R. B., of Ind., \$15; J. G., of Pa., \$20; O. W. & B., of Ill., \$16; G. C. P., of Cal., \$40; G. H. M., of Ohio, \$20; A. C. K., of Wis., \$28; W. P., of Ark., \$26; A. W. T., of Ill., \$50; M. J. D., of Ohio, \$10; T. K. M., of Conn., \$16; W. M., of Mass., \$16; E. A. P., of Mass., \$30; H. A. A., of N. Y., \$20; B. M., of N. Y., \$25; G. W. B., of N. Y., \$41; W. M., of N. Y., \$16; J. S., of N. Y., \$16; J. B., of N. Y., \$16; C. A. S., of N. Y., \$41; C. St. J., of Mass., \$45; H. McK., of Ill., \$16; E. G. R., of Mich., \$20; D. S., of Cal., \$32; W. B. V., of Pa., \$20; T. R., of N. Y., \$20; J. B. K., of Ill., \$16; H. L., of Minn., \$25; A. M. W., of Mass., \$16; F. A. B., of N. Y., \$16; C. A. W., of Vt., \$25; D. & M., of Ill., \$25; E. H., of Minn., \$16; H. C. S., of Mass., \$16; E. R. C., of N. Y., \$25; J. H., of Conn., \$44; E. K., of N. Y., \$16; D. & B., of N. Y., \$25; D. E., of Ill., \$25; W. N. S., of Ill., \$25; W. D. S., of N. Y., \$25; J. H., of Wis., \$15; J. A. M., of Ill., \$15; J. D., of Ill., \$10; C. H., of Ill., \$16; J. T., of Ind., \$20; W. F. S., of N. Y., \$41; J. P., of N. Y., \$20; I. C., of Mo., \$20; B. & S., of N. J., \$16; J. F., of N. Y., \$16; W. L., of Md., \$100; I. S., of N. Y., \$20; C. H. R., of N. Y., \$16; J. K. U., of N. Y., \$16; N. A., of Ohio, \$20; B. & G., of Conn., \$20; C. W. B., of Conn., \$59; J. R. P., of Ohio, \$25; A. H., of Ky., \$16; H. & F. B., of Ohio, \$32; H. T. S., of Mass., \$12; W. C. G., of N. Y., \$25; J. M., of Mass., \$30; W. R. F., of Cal., \$20; H. H., of Mass., \$16; G. H., of Cal., \$15; W. P., of Md., \$15; J. H. P., of Mo., \$16; W. C. N., of Conn., \$25; F. J. R., of Ill., \$15; N. J. C., of Ill., \$10; L. D. C., of Mich., \$20; C. M., of Mass., \$16; P. D., of N. Y., \$16; L. B. B., of Ill., \$17; A. J. F., of Vt., \$20; H. L., of N. Y., \$56; J. F., of N. Y., \$25; J. S., of N. Y., \$25; A. J. C., of N. Y., \$25; H. McK., of Ill., \$25; J. F. C., of N. Y., \$181; P. A. C., of Ind., \$30; J. T. P., of Ind., \$30; J. J. R., of Ohio, \$20; J. E. G., of England, \$16; T. A. G., of Ill., \$16; C. & P., of N. Y., \$16; S. L. O., of Conn., \$16.

Persons having remitted money to this office will please to examine the above list to see that their initials appear in it and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, stating the amount and how it was sent, whether by mail or express.

Specifications and drawings and models belonging to

parties with the following initials have been forwarded to the Patent Office, from Wednesday, April 6, 1864, to Wednesday, April 13, 1864:—

- R. A. V., of N. Y.; B. M., of N. Y.; A. S. L., of N. Y.; G. W. B., of N. Y.; W. F. S., of N. Y.; E. R. C., of N. J.; C. A. W., of Vt.; W. C. G., of N. Y.; R. B., of N. Y.; R. B. W., of Ohio; W. P., of U. S. A.; D. E., of Ill.; T. J. E., of Ind.; H. T. S., of Mass.; J. R. P., of Ohio; P. & B., of Pa.; C. B., of Ind.; J. M., of Mass.; G. C. W., of Ohio; H. & R., of Pa.; H. L., of Minn.; D. & B., of N. Y.; R. W., of N. Y.; O. E., of Pa.; H. L., of Ky.; A. C. K., of Wis.; J. S., of Iowa; W. D. S., of N. J.; W. N. S., of Ill.; N. & J. C., of Ill.; A. W. T., of Ill.; W. C. N., of Conn.; J. H. H., of Conn.; D. & M., of Ill.; G. W. B., of Ohio; J. F. C., of N. Y., (5 cases); H. McK., of Ill.; J. F., of N. Y.; H. L., of N. Y.; H. A. A., of N. Y.; A. J. C., of N. Y.; J. S., of N. Y.; J. F., of Conn.; C. W., of Iowa; E. A. P., of Mass.; J. T. P., of Ind.; P. A. C., of Mass.

RATES OF ADVERTISING.

TWENTY-FIVE CENTS per line for each and every insertion, payable in advance. To enable all to understand how to calculate the amount they must send when they wish advertisements published, we will explain that ten words average one line. Engravings will not be admitted into our advertising columns, and, as heretofore, the publishers reserve to themselves the right to reject any advertisement they may deem objectionable.

BAIRD'S NEW AND REVISED CATALOGUE OF Practical and Scientific Books, complete to April 12, and fuller than any he has heretofore published, is now ready for delivery. He will send it free of postage to any reader of the SCIENTIFIC AMERICAN who will favor him with his address. In it will be found many new books of great interest and value just ready or in preparation. HENRY CAREY BAIRD, Industrial Publisher, 406 Walnut street, Philadelphia.

ARMY CLOTHING AND EQUIPAGE OFFICE, Cincinnati, Ohio, April 6, 1864.

PROPOSALS ARE INVITED BY THE UNDERSIGNED, until WEDNESDAY, April 20th, 1864, at 12 o'clock, M., for furnishing this Department (by contract) with—

- Blankets—Woolen.....Army Standard. 1 do.
Blankets—Cotton.....do.
Color Belts.....do.
Drums—complete.....do.
Felling Axes (first quality only and to weigh from 4 1/2 to 5 1/2 lbs.).....do.
Felling Ax Handles, Guldons (Cavalry).....do.
Kersey, Sky-blue.....do.
Pick Axes.....do.
Pick-ax Handles.....do.
Spades.....do.
Shelter Tents.....do.
Samples of which may be seen at the Office of Clothing and Equipage in this city.

To be delivered, free of charge, at the U. S. Inspection Warehouse, in this city, in good new packages, with the name of the party furnishing, the kind and quantity of goods distinctly marked on each article and package.

Parties furnishing goods must in all cases furnish samples, marked and numbered to correspond with their proposal, and distinctly state in their bids the quantity of goods they propose to furnish, the price and the time of delivery.

A guaranty, signed by two responsible persons, must accompany each bid, guaranteeing that the bidder will supply the articles awarded to him under his proposal.

Bids will be opened on Thursday, April 20, 1864, at two o'clock, P. M., at this office, and bidders are expected to be present.

Awards will be made on Saturday, April 21st.

Bonds will be required that the contracts will be faithfully fulfilled. Telegrams relating to proposals will not be noticed.

Blank forms of proposals may be obtained at this office. The right to reject any bid deemed unreasonable is reserved. By order of Col. Thomas Swords, A. Q. M. G. W. MOULTON, Captain and A. Q. M.

ARMY SUPPLIES.

OFFICE OF ARMY CLOTHING AND EQUIPAGE, NEW YORK, April 7th, 1864.

SEALED PROPOSALS WILL BE RECEIVED AT this Office until 12 o'clock, M., on Thursday the 14th instant, for furnishing by contract, at the Depot of Army Clothing and Equipage in this city, SIX MULE-WAGON HARNESS, COMPLETE.

Specifications for which can be seen at this Office. Bidders will state the quantity they wish to supply, and the shortest time in which they can deliver it.

All proposals must be accompanied by a proper guarantee for the faithful performance of a contract.

The United States reserves the right to reject all bids deemed objectionable.

Proposals should be endorsed, "Proposals for furnishing Harness," and addressed to LT.-COL. D. H. VINTON, Dy. Qr. Mr. Genl.

BAIRD'S NEW AND REVISED CATALOGUE OF Practical and Scientific Books, complete to April 12, and fuller than any he has heretofore published, is now ready for delivery. He will send it free of postage to any reader of the SCIENTIFIC AMERICAN who will favor him with his address. In it will be found many new books of great interest and value just ready or in preparation. HENRY CAREY BAIRD, Industrial Publisher, 406 Walnut street, Philadelphia.

PATENT COMMISSION HOUSE!—SNYDER & WALTER, 229 Broadway, New York. Valuable Patent Rights sold for cash in New York within thirty days. Exchanges made for Real Estate. Consignments respectfully solicited. Address SNYDER & WALTER, 229 Broadway, New York. REFERENCES:—H. D. Smith, Esq., Chemical Bank, New York; J. W. Kirby, Metropolitan Bank New York.

PORTABLE STEAM ENGINES—COMBINING THE maximum of efficiency, durability and economy with the minimum of weight and price. They are widely and favorably known, more than 300 being in use. All warranted satisfactory or no sale. Descriptive circulars sent on application. Address J. C. HOADLEY & CO. Lawrence, Mass.

BAIRD'S NEW AND REVISED CATALOGUE OF Practical and Scientific Books, complete to April 12, and fuller than any he has heretofore published, is now ready for delivery. He will send it free of postage to any reader of the SCIENTIFIC AMERICAN who will favor him with his address. In it will be found many new books of great interest and value just ready or in preparation. HENRY CAREY BAIRD, Industrial Publisher, 406 Walnut street, Philadelphia.

GREAT IMPROVEMENT IN OVAL LATHES.

We would call the especial attention of all parties who are engaged in oval turning, to a new and improved Lathe patented by James Burton, of Albany. It is the best and most scientifically constructed Oval Lathe ever made, possessing the facility of being run at a high rate of speed, without causing an undue amount of vibration. Any one desiring to purchase, with the right to use, can see one in operation at the Works of ROBERT MARCHER & BRO., 221 & 223 West 26th street, New York, where also all necessary information concerning the same can be had.

WANTED IMMEDIATELY TO SELL THE RIGHT of Best Patent Peg Float known. For circular, with cut, address—CHAS. H. ODELL, Poughkeepsie, N. Y.

BAIRD'S NEW AND REVISED CATALOGUE OF Practical and Scientific Books, complete to April 12, and fuller than any he has heretofore published, is now ready for delivery. He will send it free of postage to any reader of the SCIENTIFIC AMERICAN who will favor him with his address. In it will be found many new books of great interest and value just ready or in preparation. HENRY CAREY BAIRD, Industrial Publisher, 406 Walnut street, Philadelphia.

INDICATOR CARDS TAKEN AND POWER TESTED. Address—HOWARD ROGERS, 16 Beekman street, New York 17 1*

THE EVANS & BURGESS PATENT WATER FRONT FORGE is the best for using Lehigh or other hard coal now known to the public. Will save 33 per cent of fuel over any other forge now in use. Besides will protect the workmen from the gas and heat as to remove all objections whatever. They are being extensively adopted in many of the first armories and workshops in the country. Please send for a circular and price list. G. W. BIGELOW, sole proprietor, 25 Whitney ave., New Haven, Conn. 17 3*

ANDREWS & KALBACH WATER WHEELS.—I AM prepared to furnish these wheels of all sizes. They yield about 65 per cent useful effect, as per report of test of Turbine Wheels at Philadelphia, March, 1860, on a very rough model, and have proven themselves very durable and desirable for all purposes. For particulars, apply, stating the size and work to be done, to THODORE H. BIRDSON, Mount Holly, New Jersey. 17 5*

TO MANUFACTURERS OF MACHINISTS' TOOLS AND DEALERS IN RAILROAD SUPPLIES.

THE UNDERSIGNED, MANAGER OF THE CAROLINA RAILROAD, being about to change the plant of said road from Mule to Steam Power, solicits the Catalogues of Machinists' Tools with the lowest prices; of the different articles marked on them in American gold; the articles to be delivered in the city of New York.

He also solicits the prices of Railroad Wheels, Axles, Boxes, Guides, Springs, Draught Bars, and Articles appertaining to Cars, Freight as well as Passenger; all for light cars of 2500 lbs. weight.

The prices to be marked in United States gold, the articles to be delivered in the city of New York, and to be there paid for in said coin, or its equivalent in currency on delivery.

The wheels of the cars to be 26 inches diameter, and to not weigh over 200 lbs.; to have 3 1/4 inches tread, with 3/4 flange; the wheels to be bored and slotted for keying; the axle to be 2 1/4 inches diameter in the wheel; to be flanged at each end. Address GEO. K. STEVENSON, Carrizal-bajo, Chile, South America.

Agent in New York, HENRY F. FALLON, 142 Pearl street. 17 2

BAIRD'S NEW AND REVISED CATALOGUE OF Practical and Scientific Books, complete to April 12, and fuller than any he has heretofore published, is now ready for delivery. He will send it free of postage to any reader of the SCIENTIFIC AMERICAN who will favor him with his address. In it will be found many new books of great interest and value just ready or in preparation. HENRY CAREY BAIRD, Industrial Publisher, 406 Walnut street, Philadelphia.

WANTED.—A PAPER-PERFORATING MACHINE (new or old). Address—M. M. LIVINGSTON, Office of SCIENTIFIC AMERICAN, New York city. 17 1*

E. H. BELLOWS, MANUFACTURER OF PORTABLE and Stationary Steam Engines, Worcester, Mass. 17 10*

IMPORTATION OF SCIENTIFIC BOOKS AND PERIODICALS FROM EUROPE.—The Subscribers beg to call the attention of the readers of the SCIENTIFIC AMERICAN to their unrivalled facilities for the importation of Books and Periodicals from England, France, Germany and Belgium. Having established this special branch of business in 1841, and since given it their exclusive attention, they are prepared to fill with systematic care all orders which may be entrusted to them. Particular attention is given to the importation of Scientific Publications of all kinds.—J. PENNINGTON & SON, Importing Booksellers, 127 South Seventh street, Philadelphia. 17 2

PATENT IMPROVED SOLID EMERY WHEELS, FOR Cutting, Grinding, and Polishing. No Metal-worker should be without them. Orders promptly filled. Smyrna Emery by the Keg, warranted Pure. NEW YORK EMERY WHEEL COMPANY, 51 Beekman street, New York. 17 3*

HAMMERED AND ROLLED CAST STEEL FOR TOOLS, DRILLS, DIES, SPRINGS, CARBINES, also steel forged to any required shape, by the MONTAUK IRON AND STEEL CO. Office, 16 Beekman Street, New York. 16 11

A MOST VALUABLE PATENT FOR BLAST ON SALE.—Address, CHARLES SUCKOW, Box 4487, Buffalo, New York. 16 4*

SELF-REGISTERING CALIPERS, CAUTION.—THE public are hereby cautioned against purchasing, making, vending or using self-registering calipers under or by virtue of letters patent alleged to have been granted to William A. Morse, as we claim his supposed invention is an infringement on the patent issued January 7, 1863, to David C. Talbot, and assigned to and now owned by the subscribers, KIMBALL & TALBOT, Worcester, Mass. 16 3*

WANTED.—INFORMATION IN REGARD TO "PORTABLE Houses" either iron or wood. Also Portable Sawmills Address, S. A. BARNES, Box 742, Nashville, Tenn. 16 2*

CIVIL AND MECHANICAL ENGINEERING.—F. W. EVANS, Ancien Eleve de l'Ecole Imperiale Centrale des Arts et Manufactures, de Paris, gives particular attention to the construction of Iron Rods, and Stone, Iron and Wooden Bridges. 103 State street, Boston, Mass. 16 10*

MACHINERY AT PEACE PRICES.—A LOT OF BARREL and Keg Machinery for sale very low, to close an estate. Address RUFUS TYLER, Administrator, Ausable Forks, Essex Co., N. Y. 15 6*

DRAFTING INSTRUMENTS FOR ENGINEERS, SURVEYORS, Architects, Machinists, and Schools, Engineers' and Surveyors' transits, levels, compasses, and chains, Chesterman's Metallic and Steel Tape-measures, for sale, wholesale and retail, by JAMES W. QUEEN & CO., 924 Chestnut street, Philadelphia. Priced and illustrated catalogues gratis. 11 10*

WANTED.—AMERICAN OR ENGLISH IMPROVEMENTS in machinery for manufacturing cotton or wool, old or new, patented or unpatented. CHARLES A. SHAW, Biddeford, Maine. 12 10*

GROVER & BAKER'S HIGHEST PREMIUM ELASTIC Stitch Sewing Machines, 495 Broadway, New York. 12 11

ANTI-INCORUSTATION.—BEWARE OF COUNTERFEITS. Winan's Anti-Incorustation Powder—so long a success—is being pirated. Cost 10 cents a day or less. A certain remedy without injury. Apply for circular to H. N. WINANS, 11 Wall street, New York. 14 4*

AGENCY FOR THE INTRODUCTION AND SALE OF PATENT INVENTIONS.—Inventors and manufacturers desirous of having their inventions introduced into this country and abroad, will find it to their interest to send descriptive, illustrated pamphlets or circulars to A. SCHELLER, 370 Bowery, New York. 11 4*