



S. C., of Pa.—By the usual rule your engine of 13-inch cylinder and 3 feet stroke, making 55 revolutions per minute with 50 pounds pressure on each square inch of the piston has a nominal power of 32 1/2 horses without deducting for friction, etc.

J. H., of Canada.—You will have a nominal horse-power of 27 horses; the actual horse-power at 60 pounds pressure and 100 revolutions of the screw shaft will be nearly three times greater.

H. A. B., of Mass.—The proper way to ascertain the weight of castings is to take the number of cubic inches in the shape, and multiply by the weight of one cubic inch; one square foot of cast-iron one inch thick weighs 37.6 pounds, brass 43.9 pounds, copper 45 pounds.

G. F. L., of N. Y.—We know of no mode of silvering wood except the usual one of covering the wood with silver plate, which is secured by an adhesive varnish. Some workman would teach you the process.

T. H., of Ind.—We do not know from whom you can obtain a machine for pearling barley, but would advise you to correspond with some agricultural warehouse.

J. E. B., of Mass.—For a reply to your inquiry concerning the sale and use of a joint-patent, we refer you to the opinion of Judge Chapman of the Supreme Court of Massachusetts, published on page 44 of this volume.

E. H. M., of Tenn.—To stain wood a beautiful blue, dip the wood in a hot solution of sulphate of indigo, and then while hot place it in a solution of three ounces of cream of tartar to a quart of water.

C. C., of Pa.—Your communication in regard to the treatment of typhoid fever would be more suitable for a medical journal than for us.

Money Received.

At the Scientific American Office, on account of Patent Office business, from Wednesday, May 11, 1864, to Wednesday, May 13, 1864:—

- J. H., of N. Y., \$16; F. N., of N. Y., \$16; M. T., of Iowa, \$20; W. C., of Mass., \$45; B. S., of Mass., \$44; W. P. B., of N. Y., \$20; C. B. N., of N. Y., \$20; C. C., of Russia, \$20; O. C. P., of N. Y., \$48; S. & E., of N. Y., \$30; J. H., of N. Y., \$20; B. M., of Ohio, \$20; H. & T., of Cal., \$15; H. S., of Tenn., \$15; J. S. T., of N. Y., \$16; G. S., of Ky., \$16; E. D., of Me., \$30; R. K., of Tenn., \$25; H. E. F., of Conn., \$16; J. R. E., of Tenn., \$16; T. G. P., of Iowa, \$21; B. & A., of Cal., \$21; T. H. S., of N. Y., \$21; P. M. R., of Cal., \$20; J. A. M., of Ky., \$20; E. H., of Minn., \$25; A. R., of Ill., \$16; S. S. J., of Ohio, \$25; H. M., of N. Y., \$20; W. J. T., of Me., \$15; B. & B., of Ind., \$16; W. S., of N. Y., \$20; W. C. N., of Conn., \$20; A. W., of Scotland, \$20; L. T. D., of R. I., \$20; C. H., of N. Y., \$16; J. H., of Conn., \$20; B. & L., of N. Y., \$10; J. M. M., of N. Y., \$22; C. J. E., of N. Y., \$10; E. F. S., of N. Y., \$41; J. T., of Pa., \$20; F. H., of Mich., \$16; A. B. R., of Iowa, \$16; L. W., of Conn., \$16; G. W. P., of N. Y., \$16; S. L. G., of Conn., \$26; E. H. C., of Mich., \$25; E. S., of N. Y., \$25; G. D., of Conn., \$25; W. G., of La., \$20; E. H. C., of Mich., \$15; J. H. M., of N. Y., \$25; E. C. S., of Me., \$16; J. C. T., of Pa., \$35; H. T., of Wis., \$16; H. B. W., of Iowa, \$15; W. A. H., of Ind., \$25; W. N., of N. Y., \$20; N. F. R., of Conn., \$40; S. E. T., of Wis., \$20; J. J. D., of N. Y., \$16; C. A. S., of N. Y., \$20; J. J. D., of N. Y., \$16; R. B. W., of Ohio, \$20; D. & A., of N. Y., \$44; E. J. S., of Md., \$45; C. & W., of N. Y., \$25; J. T. Van D., of N. Y., \$16; W. P. M., of Wis., \$16; A. R., of Cal., \$40; J. F., of Ohio, \$16; S. S. H., of N. Y., \$28; L. G., of Cal., \$23; E. B. B., of Mich., \$41; F. L., of La., \$16; J. E. H., of Mich., \$25; C. A. M., of Ill., \$25; W. N. B., of Ind., \$15; A. H., of Conn., \$25; O. W. & B., of Ill., \$25; L. M., of Mich., \$16; B. & B., of Ind., \$16; J. B., of Iowa, \$16; J. B. W., of N. J., \$20.

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, May 11, 1864, to Wednesday, May 13, 1864:—

- A. K., of Prussia; J. B. & B., of Paris; J. S., of N. Y.; W. D., of N. Y.; M. C., of N. Y.; A. D., of N. Y.; H. T. J. P., of France; C. S., of England; M. G., of N. J.; J. G., of England, 2 cases; J. F., of N. J.; J. M. M., of N. Y.; E. T. S., of N. Y.; D. & A., of N. Y.; D. & A., of N. Y.; E. K., of N. Y.; J. A. H., of Wis.; E. H. C., of Mich.; S. S. H., of N. Y.; E. B. B., of Ind.; G. D., of Conn.; B. & A., of Cal.; J. E. H., of Mich.; R. K., of Tenn.; E. D., of Maine; S. L. G., of Conn.; G. S., of Ky.; J. B. W., of N. J.; J. A. D., of Ill.; C. & W., of N. Y.; J. F., of N. J.; E. S., of N. Y.; J. H. M., of N. Y.; C. A. M., of Ill.; J. & B., of France; H. F. J. P., of France; T. H. S., of Va.; W. N. B., of Ind.; O. W. & B., of Ill.; E. H., of Minn.; H. B. W., of Iowa; S. S. J., of Ohio; W. A. H., of Ind.

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and enclosing \$1 as fee for

copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired.

MODELS are required to accompany applications for Patents under the new law, the same as formerly, except on design patents, when two good drawings are all that are required to accompany the petition, specification and oath, except the Government fee.

Binding the "Scientific American."

It is important that all works of reference should be well bound. The SCIENTIFIC AMERICAN being the only publication in the country which records the doings of the United States Patent Office, it is preserved by a large class of its patrons, lawyers and others, for reference. Some complaints have been made that our past mode of binding in cloth is not serviceable, and a wish has been expressed that we would adopt the style of binding used on the old series, i. e., heavy oarboard sides covered with marble paper, and morocco backs and corners.

Believing that the latter style of binding will better please a large portion of our readers, we commenced on the expiration of Volume VII, to bind the sheets sent to us for the purpose in heavy board sides, covered with marble paper and leather backs and corners.

The price of binding in the above style 75 cents. We shall be unable hereafter to furnish covers to the trade, but will be happy to receive orders for binding at the publication office, No. 37 Park Row, New York.

Back Numbers and Volumes of the "Scientific American."

VOLUMES I., III., IV., VII., VIII. AND IX., (NEW SERIES) complete (bound) may be had at this office and from periodical dealers. Price, bound, \$2 25 per volume, by mail, \$3—which includes postage. Every mechanic, inventor or artisan in the United States should have a complete set of this publication for reference. Subscribers should not fail to preserve their numbers for binding. VOLS. II., V. and VI. are out of print and cannot be supplied. We are unable to supply any of the first six numbers of the current volume. Therefore all new subscriptions will begin hereafter with the time the money is received.

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.

TO SHEET METAL-WORKERS.

Terrell's Sheet Metal-forming Machine, patented May 3d, 1864. This Machine is adapted to be attached to most of the cutting out presses used, and is calculated for forming Tins, Slides, Buttons, Spangles, &c., used in the manufacture of hoop skirts, also eyelets and other articles of sheet metal. It is simple in its construction, and can be run rapidly with safety. The whole or part of the Patent for sale. For further particulars address the inventor, F. J. TERRELL, Ansonia, Conn.

FOR BURLEIGH'S FRICTION CLUTCH PULLEYS.

Address C. E. PAINTER, Worcester, Mass.

FOR SALE.—AN INDEX GEAR-CUTTING ENGINE.

entirely new, never used. Address BULLARD & PREST, 47 Trumbull street, Hartford, Conn.

TO CANDLE MANUFACTURERS.—CONSULTATIONS.

and information on the Art of Making Candles; Plans of Manufacture; Apparatus; Processes to manufacture common Candles; Paraffine, Adamantine, and Stearic Candles. Processes to Bleach and Harden Tallow and Greases; Purify Tallow; Bleach Palm Oil and make Candles out of it; Essay of Tallow, Greases, Candles, &c. Address Prof. H. DUSSAUCE, Chemist, New Lebanon, N. Y.

THE RAVAGES OF A CARPET; HOME-KEEPING.

The Economy of the Beautiful; Raking up the Fire. The above are the titles of the new series of papers which Mrs. Harriet Beecher Stowe is writing for the ATLANTIC MONTHLY. They are called HOUSE AND HOME PAPERS, and are designed to illustrate the art of making a Happy Home. Each number of the ATLANTIC contains one of these excellent articles, which should be read in every household. The ATLANTIC is furnished at 25 cents a number, or THREE DOLLARS a year, postage paid. Clubs at a liberal discount. Address TICKNOR & FIELDS, Boston, Mass.

WANTED.—AN EXPERIENCED CANVASSER IN

each State to sell Rights of Doty's celebrated New York Clothes Washer, the simplest and best Washing Machine yet introduced. Highly praised by SOLON ROBINSON, Prof. YOUNG, and other eminent scientific men. Also to sell Rights of Davis's improved Clothes Drier, lately illustrated and highly spoken of in the SCIENTIFIC AMERICAN. Address W. M. DOTY, 23 Elm street, New York.

J. E. STEVENSON, ENGINEER AND MACHINERY

BROKER, 200 Broadway, New York, has superior facilities for the manufacture, introduction, and sale of patented inventions of real merit. Patronage solicited.

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second-hand Engine Lathes, three Iron Planers, 3, 5, and 7 feet. Address E. C. TAINTER, Worcester, Mass.

LANDON'S IMPROVED MILL-STONE BUSH AND

Oiling Apparatus combined. To Millers and Manufacturers of, and Dealers in mill irons and mill machinery, and to whom it may concern, notice is hereby given that all infringements on my rights as owner of the above-named Mill-stone Bush, and Oiling Apparatus, will be prosecuted to the extent of the law. State Rights for sale. Address GEO. W. LANDON, Graham Post-office, Jefferson county, Ind.

FOR SALE.—IN CONSEQUENCE OF THE DECEASE

of the Patentee—the entire Patent Right for "Murphy's Solid Hub Chilled Car Wheels." Used on following roads:—Reading and Philadelphia Railroad; New Jersey Railroad and Transportation Company; Lackawanna and Western Railroad; Pennsylvania Central Railroad; Camden and Amboy Railroad; Philadelphia, Germantown, and Norristown Railroad; Georgia Railroad and B. Company. Manufactured (by permit) at several of the largest foundries in the Union, and certified by twenty-eight of the most eminent Railroad Superintendents to be the best, strongest, and most liable to get loose, and by \$2 the cheapest wheel in use. For further particulars, address SNYDER & WALTER, 229 Broadway, New York.

THEYSON & OGG, 39 GREENE STREET, NEAR

Grand street, Machinists, Brass Finishers, and Model Makers. Experimental Machinery, Indicators, Registers, and Steam Gages of any kind accurately and promptly made.

PROPOSALS ARE INVITED BY THE UNDERSIGNED

until Tuesday, May 24th, 1864, at 2 o'clock P. M., for furnishing this Department (by contract) with— Drills—Army Standard, ordinary width; do do 33 inches; Flannel—Canton, Army Standard; Flannel—Shirting, do; Lace—Worsted, Scarlet, 1 1/2 inch Army Standard; do do do do; Lace—Worsted, Yellow, 1 1/2 do do; do do 1 1/2 do 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 offering goods must distinctly state in their bids, the quantity they propose to furnish, the price, and time of delivery.

Samples when submitted, must be marked and numbered to correspond with the proposal; and the parties thereto, must guarantee that the goods shall be, in every respect, equal to Army Standard, otherwise the proposal will not be considered.

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

Awards will be opened on Tuesday, May 24th, 1864, at 2 o'clock P. M., at this office, and bidders are requested to be present.

Bonds will be required that the contracts will be faithfully fulfilled. Telegrams relating to proposals will not be noticed. Blank forms of proposals, contracts, and bonds 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.

PROPOSALS ARE INVITED BY THE UNDERSIGNED

until Monday, May 30th, 1864, at 2 o'clock P. M., for furnishing this Department (by contract) with— Boots—Army Standard; Boots, Cavalry—Army Standard.

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 offering goods, must distinctly state in their bids the quantity they propose to furnish, the price, and time of delivery.

Samples when submitted, must be marked and numbered to correspond with the proposal, and the parties thereto must guarantee that the goods shall be, in every respect, equal to Army Standard, otherwise the proposal will not be considered.

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 Monday, May 30th, 1864, at 2 o'clock P. M., at this office, and bidders are requested to be present.

Bonds will be required that the contract will be faithfully fulfilled. Telegrams relating to proposals will not be noticed. Blank forms of proposals, contracts, and bonds may be obtained at this office.

The right to reject any bid deemed unreasonable is reserved. By order of Col. Thos. Swords, A. Q. M. G.

SEALD PROPOSALS WILL BE RECEIVED AT

this Office until 12 o'clock, M., on Thursday the 26th of May inst, for furnishing by contract, at the Depot of Army Clothing and Equipage in this city:—

Army Blankets, wool, grey (with the letters U. S. in black, 4 inches long, in the center), to be 7 feet long, and 5 feet 6 inches wide, to weigh 5 pounds each, of domestic manufacture.

Bidders will state the quantity they wish to furnish, the shortest time in which they can make a delivery, and how soon they can complete the delivery of the quantity they bid for. They will submit, with their proposals, a sample of the article they propose to furnish.

All bids must accompany a proper guaranty, signed by two responsible parties, setting forth that if a contract is awarded to the parties named, they will at once execute the same, and give bonds for its faithful performance.

The United States reserves the right to reject any part or the whole of the bids, as may be deemed for the interest of the service. Proposals should be endorsed "Proposals for furnishing Blankets," and addressed to

LT.-COL. D. H. VINTON, Dy. Qr. Mr. Genl.

PROPOSALS ARE INVITED BY THE UNDERSIGNED

until Thursday, May 26th, 1864, at 2 o'clock, P. M., for furnishing this Department (by contract) with— Cloth, D. B. Uniform—Army Standard; Flannel, Blouse do 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 offering goods must distinctly state in their bids the quantity they propose to furnish, the price, and time of delivery.

Samples when submitted, must be marked and numbered to correspond with their proposal, and the parties thereto must guarantee that the goods shall be, in every respect, equal to Army Standard, otherwise the proposal will not be considered.

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, May 26, 1864, at two o'clock, P. M., at this office, and bidders are requested to be present.

Awards will be made on Friday, May 27th. Bonds will be required that the contracts will be faithfully fulfilled. Telegrams relating to proposals will not be noticed.

Blank forms of proposals, contracts, and bonds, 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.

SALE OF CONDEMNED CLOTHING, CAMP AND

GARRISON EQUIPGE, TENT CUTTINGS, &c. CHIEF QUARTERMASTER'S OFFICE, DEPT OF WASHINGTON, WASHINGTON, D. C., May 12, 1864.

Will be sold at public auction, at Government Warehouse, No. 6 Seventeenth street, between H and I streets, Washington City, D. C., at 12 o'clock M. Thursday, May 26, 1864, under the supervision of Capt. D. G. Thomas, M.S.K., U.S.A., a large lot of stores condemned as unfit for public service, to-wit:—

Infantry and Cavalry Coats and Trowsers, Shirts, Drawers, Stockings, Felt Hats, Caps, Trumpets, Bugles, Flags, Drums, Tents, Tent Poles, Mess Pans, Camp Kettles, Spades, Shovels, Knapsacks, Haversacks, Bed Sacks, &c., &c., &c. Also about sixty tons of Tent Cuttings. Terms, cash in Government funds. Successful bidders will be required to remove the stores within five days from date of sale. D. H. RUCKER, Brigadier General and Chief Quartermaster, Depot of Washington, D. C.

PATENTS.—SNYDER & WALTER, 229 BROAD-

WAY, New York. Valuable Patents sold for cash on commission. Consignments respectfully solicited. Being connected with the American Manufacturing Company (Mr. Walter as a Trustee) we are enabled to introduce, manufacture, or sell first-class Patents on satisfactory terms. Address SNYDER & WALTER, 229 Broadway, New York. Refer to Sheppard Seward & Co., 214 Pearl street, New York; and John Wilmot, Esq., 2 Bowling Green, New York.

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