

IMPORTANT TO INVENTORS.

PATENTS FOR SEVENTEEN YEARS.

MESSRS. MUNN & CO., PROPRIETORS OF THE SCIENTIFIC AMERICAN, continue to solicit patents in the United States and all foreign countries, on the most reasonable terms.



They also attend to various other departments of business pertaining to patents, such as Extensions, Appeals before the United States Court, Interferences, Opinions relative to Infringements, &c.

THE EXAMINATION OF INVENTIONS.

Persons having conceived an idea which they think may be patentable, are advised to make a sketch or model of their invention, and submit it to us, with a full description, for advice.

PRELIMINARY EXAMINATIONS AT THE PATENT OFFICE.

The service we render gratuitously upon examining an invention does not extend to a search at the Patent Office, to see if a like invention has been presented there, but is an opinion based upon what knowledge we may acquire of a similar invention from the records in our Home Office.

HOW TO MAKE AN APPLICATION FOR A PATENT.

Every applicant for a patent must furnish a model of his invention if susceptible of one; or, if the invention is a chemical production, he must furnish samples of the ingredients of which his composition consists, for the Patent Office.

The revised Patent Laws, enacted by Congress on the 2d of March, 1861, are now in full force, and prove to be of great benefit to all parties who are concerned in new inventions.

The duration of patents granted under the new act is prolonged to SEVENTEEN years, and the Government fee required on filing an application for a patent is reduced from \$30 down to \$15.

Table listing fees for patent applications: On filing each caveat, \$10; On filing each application for a Patent, except for a design, \$15; On issuing each original Patent, \$20; On appeal to Commissioner of Patents, \$20; On application for Re-issue, \$30; On application for Extension of Patent, \$50; On granting the Extension, \$10; On filing a Disclaimer, \$10; On filing application for Design, three and a half years, \$10; On filing application for Design, seven years, \$15; On filing application for design, fourteen years, \$30.

The law abolishes discrimination in fees required of foreigners, excepting natives of such countries as discriminate against citizens of the United States—thus allowing Austrian, French, Belgian, English, Russian, Spanish and all other foreigners except the Canadians, to enjoy all the privileges of our patent system.

During the last seventeen years, the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted by Messrs. MUNN & CO., in connection with the publication of the SCIENTIFIC AMERICAN; and as an evidence of the confidence reposed in our Agency by the inventors throughout the country, we would state that we have acted as agents for at least TWENTY THOUSAND inventors!

CAVEATS.

Persons desiring to file a caveat can have the papers prepared in the shortest time by sending a sketch and description of the invention. The Government fee for a caveat, under the new law, is \$10.

ASSIGNMENTS OF PATENTS.

Assignments of patents, and agreements between inventors and manufacturers are carefully prepared and placed upon the records at the Patent Office. Address MUNN & CO., at the Scientific American Patent Agency, No. 37 Park Row New York.

It would require many columns to detail all the ways in which inventors or patentees may be served at our offices. We cordially invite all who have anything to do with Patent property or inventions to call at our extensive offices, No. 37 Park Row, New York, where any questions regarding the rights of patentees will be cheerfully answered.

Communications and remittances by mail, and models by express (prepaid), should be addressed to MUNN & CO., No. 37 Park Row, New York.

REJECTED APPLICATIONS.

We are prepared to undertake the investigation and prosecution of rejected cases on reasonable terms. The close proximity of our Washington Agency to the Patent Office affords us rare opportunities for the examination and comparison of references, models, drawings, documents, &c.

All persons having rejected cases which they desire to have prosecuted are invited to correspond with us on the subject, giving a brief story of the case, inclosing the official letters, &c.

FOREIGN PATENTS.

We are very extensively engaged in the preparation and securing of patents in the various European countries. For the transaction of this business we have offices at Nos. 66 Chancery lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels.

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.

Circulars of information concerning the proper course to be pursued in obtaining patents in foreign countries through our Agency, the requirements of different Government Patent Offices, &c., may be had gratis upon application at our principal office, No. 37 Park Row, New York, or any of our branch offices.



R. R. H., of Cal.—We have safely received the little block of wood cut from an ancient California tree, but your interesting letter is unavoidably "crowded out" until our next number.

W. W. T. of S. C.—You say you are an engineer and ask us if water can be forced into a boiler through a vacuum by Giffard's injector. If you will consider the nature of a vacuum you will see that your question is meaningless.

B. D. H., of L. I.—Professor Donnelly's experiments with boiling water deprived of air and made to burst instantaneously into vapor at about 360° have been mentioned several times by us, as explaining the cause of some boiler explosions.

A. C. R., of Mass.—The frigate Minnesota carries 32 9-inch Dahlgren guns on the gun-deck and 14 of 9-inch and 2 of 11-inch on the spar-deck. You will find a description of the armament of several frigates on page 265, Vol. IV (new series), of the SCIENTIFIC AMERICAN.

H. M., of N. Y.—You may dissolve platinum in a hot mixture of two parts of concentrated muriatic acid and one part of concentrated nitric acid. You can probably obtain some of this metal from the chemists in Buffalo—the city where you reside.

A. H., of Pa.—So far as we know, there is not a linen factory in operation in the United States. Perhaps the best way for you to do, in obtaining first-class machines for manufacturing linen, would be to import them from P. Fairbairn's Works, Leeds, England.

C. C. P., of Ohio.—The specimen of ore which you have sent us is iron pyrites of very little value.

J. W. and M., of Mass.—We are not acquainted with a more safe method of using petroleum in rosin gas retorts for making gas than with the siphon—the same that is used to feed the rosin-oil to the retort.

J. W., of Ohio.—You cannot obtain an available motive-power from permanent steel magnets, but you may spin a copper disk on an axis situated between two electro-magnets, by breaking and closing the circuit alternately.

C. C. L., of Fla.—Nitrogen is not a product of perfect combustion. The nitrogen of the air which passes into a furnace during combustion passes off unaltered in character, at a high heat and cannot be justly called a product of combustion.

J. W. B., of N. Y.—Your article on steam boiler explosions does not suggest anything new on the subject; we have therefore decided not to publish it.

J. D., of Ill.—We have already given you all the information we possess respecting the method of melting large masses of steel in France. A reverberatory furnace is used, and the steel to be melted is covered with pulverized iron slag.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, March 11, to Wednesday, March 18, 1863:—

- H. T., of N. Y., \$42; H. and D., of N. J., \$26; A. C. F., of N. Y., \$25; A. J., of N. Y., \$26; A. B. T., of N. Y., \$26; W. M. J., of Cal., \$213; R. L., of N. Y., \$20; A. A. W., of Mich., \$40; J. K., of Conn., \$40; T. H. C., of N. H., \$20; C. T. B., of N. J., \$16; J. F. J., of N. Y., \$41; E. J. M., of N. Y., \$20; O. H. K., of Saxony, \$44; J. A. T., of Mass., \$41; O. R. H., of Ohio, \$40; W. S. P., of Mich., \$20; A. T. H., of N. Y., \$22; G. W., of N. Y., \$16; B. D., of N. Y., \$46; C. R. of N. J., \$16; H. M., of N. Y., \$20; W. D. S., of N. Y., \$20; R. H., of Vt., \$20; S. S. W., of Pa., \$40; E. T. S., of Ohio, \$20; L. B., of N. Y., \$20; A. W., of N. Y., \$44; P. D., of Mass., \$22; J. A. Van R., of N. Y., \$16; H. L. B., of N. Y., \$16; E. G. H., of Mass., \$20; L. R., of N. Y., \$41; T. W., of Mass., \$16; G. F. C., of Mass., \$31; J. I., of Ohio, \$16; S. C. K., of Mass., \$25; C. W., of Mass., \$25; J. W. P., of Minn., \$16; G. H., of Ill., \$26; J. M. A., of Mass., \$12; J. H., of N. Y., \$25; C. O. L., of Vt., \$10; R. S. H., of Ill., \$15; C. H. H., of Ill., \$16; T. C., of R. I., \$35; W. K. L., of Mass., \$16; J. W., of Mich., \$16; H. S., of Pa., \$10; D. C. G., of Pa., \$10; J. P., of N. Y., \$16; G. H., of R. I., \$26; S. C. of N. Y., \$16; R. C., of N. Y., \$15; J. H. S., of Ill., \$25; L. D., of Mass., \$15; G. B. F., of Ill., \$10; A. B., of Conn., \$16; H. U., of Conn., \$40; L. and E., of Ill., \$25; M. V. D., of N. J., \$12; C. M. L., of Mass., \$40; G. S., of Mass., \$16; J. B. T., of N. Y., \$16; G. B. D., of Ill., \$15; S. and N., of Ind., \$15; J. K. H., of Ind., \$15; C. H. H., of C. W., \$26; L. C., of Mass., \$16; D. M. S., of Vt., \$25; J. B. S., of Conn., \$25; S. T., of Mass., \$25; W. D. R., of Pa., \$10; S. L. H., of Wis., \$20; W. H. F., of Mass., \$15; H. H. E., of Conn., \$16; J. P. H., of Iowa, \$15; N. P. B., of N. Y., \$25; D. J. O., of Pa., \$25; J. A. B., of Ohio, \$25; R. P. S., of Mass., \$25; S. P. McC., of Iowa, \$15; L. M. Van S., of N. J., \$26; B. D. S., of N. Y., \$26.

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, and inform us 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 on Wednesday, March 11, to Wednesday, March 18, 1863:—

- H. T., of N. J.; A. J., of N. Y.; M. V. D., of N. J.; D. M. S., of Vt.; J. B. S., of Conn.; L. M. Van S., of N. J.; E. E., of Ill.; H. U., of Conn.; J. H. S., of Ill.; S. C. K., of Mass.; C. O. L., of Vt.; H. & D., of N. J.; A. B. T., of N. Y.; O. H. K., of Saxony; T. C., of R. I.; L. R., of N. Y.; A. T. W., of Iowa; D. J. O., of Pa.; N. P. B., of N. Y.; L. & E., of Ill.; A. A. G., of N. Y.; J. H., of N. Y.; J. M. A., of Mass.; A. C. F., of N. Y.; J. F. J., of N. Y.; A. W., of N. Y.; C. H. H., of N. Y.; S. T., of Mass.; B. D. S., of N. Y.; J. A. B., of Ohio; R. W. S., of Mass.; G. H., of R. I.; G. F. C., of Mass.; G. G. H., of Ill.

RATES OF ADVERTISING.

Twenty-five Cents per line for each and every insertion, payable in advance. To enable all to understand how to compute the amount they must send in when they wish advertisements inserted, 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.

GANG PLOW WANTED—SUITABLE FOR PRAIRIE soil after once broken up. Address E. ROSE, Cleveland, Ohio, with description and price. 13 2*

VALUABLE MANUFACTURING ESTABLISHMENT FOR SALE—Located near the Westport Depot on the New York and New Haven Railroad. The factory is a brick building about 100 by 60 feet, with a beam engine of 150 horse-power, and of the most approved construction. The factory is located by the side of the channel of the Saugatuck river, below the railroad bridge, and has a water front, where vessels can lay at any stage of water, while the distance to the railroad depot is not over 20 rods. The property will be sold cheap, either with or without the engine. No more desirable location for manufacturing with economy can be found in the country. For particulars, inquire of P. T. BARNUM, at the American Museum, New York, or of WILLIAM B. BISHOP, Bridgeport, Conn. 13 4*

TO GAS AND FLUID METER MANUFACTURERS.—Improved Self-computing Register for Gas and Fluid Meters. Patented March 3, 1863, by John J. Squire, of Windsor Locks (late of New Haven, Conn.). Effectually obviates all difficulty in computing a correct registry of measurement—is applicable to the common movement—simple and thoroughly practical. A correct meter with this improvement renders all difference between producers and consumers impossible. Patent Rights for sale or lease. Address JOHN J. SQUIRE, Windsor Locks, Conn. 13 2*

INCORUSTATION IN BOILERS—A SURE REMEDY—WINAN'S ANTI-INCORUSTATION POWDER.—Seven years in successful use, without injury. This should give it preference over every unknown mixture lately put in the market. References: In New York, American Bank Note Co.; in Cincinnati, Miles Greenwood; and over 1,000 others throughout the country. Apply for circulars to H. N. WINANS, Box 6, P. O., New York City. 13 4.

FOR SALE.—A 45 HORSE-POWER ENGINE, WITH two boilers, 3 1/2 by 32 feet, each with two 13-inch flues, pump and all the fittings, nearly new; one 10-horse-power engine, with a flue, boiler, pump and fittings; four cylinder boilers, 2 1/2 by 40 feet; two cylinder boilers, 2 1/2 by 50 feet. D. S. SEYMOUR, Peekskill, N. Y. 13 3*

J. E. CHENEY, MANUFACTURER OF FILTERS FOR purifying lake, rain and river water, Rochester, N. Y. 13 4*

FOR SAW-GUMMERS ADDRESS DOLE & SILVER, Salem, Ohio, who are the exclusive manufacturers of "Dole's Patent," the best in use. 13 4*

FOR WOODWORTH'S OR DANIEL'S PLANERS AND Sash Machinery address J. A. FAY & CO., or E. C. TAINTER, succeeding partner, Worcester, Mass. 13 and 17*

DRAWING OFFICE, NO. 406 WALNUT STREET Philadelphia, Pa.—Drawings of every kind neatly executed. 13 4*

TO IRON-MASTERS.—WANTED, BY A YOUNG MAN, a situation as blast furnace manager; has been brought up to the business in the principal Iron-works of Wales. Thoroughly acquainted with the assaying of iron ores. Address M. J. D., General Post Office, Philadelphia, Pa.

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INVENTORS AND CONSTRUCTORS OF NEW AND USEFUL CONTRIVANCES OR MACHINES, OF WHATEVER KIND, CAN HAVE THEIR INVENTIONS ILLUSTRATED AND DESCRIBED IN THE COLUMNS OF THE SCIENTIFIC AMERICAN ON PAYMENT OF A REASONABLE CHARGE FOR THE ENGRAVING.

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PUBLISHERS OF THE SCIENTIFIC AMERICAN, NEW YORK CITY

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American Cotton-Spinner and Maker's and Carder's Guide. By R. H. Baird. 12mo., \$1.25. American Miller and Millwright's Assistant. By William Carter Hughes. A revised and very much enlarged edition, illustrated by engravings of the most approved machinery. 12mo., \$1.

WANTED—A NEW OR A GOOD SECOND-HAND steam engine, six or eight horse-power. Also wood-working machinery for sawing, planing, molding, edge lathes, &c.

TREE BOXES.—PROPOSALS WILL BE RECEIVED by the Engineer of the Board of Atlantic Avenue Improvement Commission, at his Office, No. 2 Mechanic's Bank Building, corner of Court and Montague streets, Brooklyn, until the 30th day of March inst. for about 800 Tree Boxes, to be efficient, durable and cheap.

EVAPORATOR STOVE WEIGHS ONLY 11 LBS.—COOKS cheap, quick and well—does not heat the room. Crude Petroleum, naphtha vapor and air for fuel. Is cheap, simple and durable.

SECOND-HAND TOOLS—GOOD AS NEW—ONE screw-cutting, screw-feeding, back-gear, engine lathe—swings 4 feet, turns 12 feet, weight about 9,000 lbs., price \$600; one power planer—planes 9 feet long, 30 inches high and 3 feet wide, weight 6,500 lbs., price \$500; two heavy, upright, back-gear, drilling machines, with revolving tables, weight about 16,000 lbs., price \$180 each.

GUN SCREWS! GUN SCREWS!!—THE SUBSCRIBERS have on hand and are manufacturing gun screws which they will warrant to fit "Springfield" Gages.

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HARRISON'S GRIST MILLS—20, 30, 36 AND 48 inches diameter, at \$100, \$200, \$300 and \$400, with all the modern improvements. Also, Portable and Stationary Steam Engines of all sizes, suitable for saw mills. Also, Bolters, Elevators, Baling, &c. Apply to S. C. HILLS, No. 12 Platt-street, New York.

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BOLTS, NUTS AND WASHERS OF ALL SIZES CONSTANTLY ON HAND FOR SALE BY LEACH BROTHERS, 86 Liberty street, New York.

A VALUABLE WORK FOR INVENTORS, PATENTEES AND MANUFACTURERS.

The publishers of the SCIENTIFIC AMERICAN have just prepared, with much care a pamphlet of information about Patents and the Patent Laws, which ought to be in the hands of every inventor and patentee, and also of manufacturers who use patented inventions.

"INVENTORS' EXCHANGE."—309 REGENT STREET, Polytechnic Institute Building, London, England. Established for negotiating the sale of Patents, and for the sale and exhibition of Patented Articles.

NERVOUS DISEASES AND PHYSICAL DEBILITY, arising from Spasmodic causes, in both sexes—new and reliable treatment, in Reports of the Howard Association—sent in sealed letter envelopes, free of charge.

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MILLSTONE-DRESSING DIAMONDS, SET IN PATENT Protector and Guide. For sale by JOHN DICKINSON, patentee and sole manufacturer, No. 64 Nassau street, New York City. Also manufacturer of Glazier's Diamonds. Old Diamonds re-set.

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MESSIEURS LES INVENTEURS—AVIS IMPORTANT. Les Inventeurs non familiers avec la langue Anglaise et qui préféreraient nous communiquer leurs inventions en Français, peuvent nous adresser dans leur langue natale. Envoyez nous un dessin et une description concise pour notre examen.

OIL! OIL! OIL! For Railroads, Steamers, and for Machinery and Burning. PEASE'S Improved Engine and Signal Oil, indorsed and recommended by the highest authority in the United States. This Oil possesses qualities vitally essential for lubricating and burning, and found in no other oil.

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MACHINE BELTING, STEAM PACKING, ENGINE HOSE.—The superiority of these articles, manufactured of vulcanized rubber, is established. Every belt will be warranted superior to leather, at one-third less price. The Steam Packing is made in every variety, and warranted to stand 300 degs. of heat. The Hose never needs oiling, and is warranted to stand any required pressure, together with all varieties of rubber adapted to mechanical purposes. Directions, prices, &c., can be obtained by mail or otherwise at our warehouse. NEW YORK BELTING AND PACKING COMPANY. JOHN H. CHEEVER, Treasurer, Nos. 37 and 58 Park-row, New York.

IRON PLANERS, ENGINE LATHES, DRILLS AND other machinists' tools, also three and four spindle Drills of superior quality, on hand and finishing, for sale low. For description and price address NEW HAVEN MANUFACTURING COMPANY, New Haven, Conn.

\$60 A MONTH! WE WANT AGENTS AT \$60 A month, expenses paid, to sell our Everlasting Pencils, Oriental Burners, and thirteen other new, useful and curious articles. Fifteen circulars sent free. Address SHAW & CLARK, Biddeford, Maine.

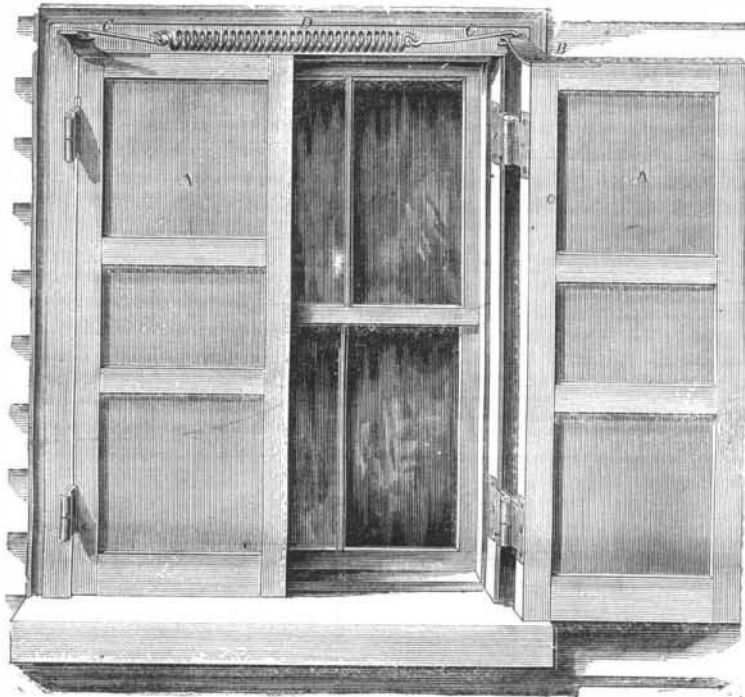
EMPLOYMENT.—THE FRANKLIN SEWING MACHINE COMPANY want traveling agents at a salary of \$40 per month and expenses paid. For Circulars, Book of Instructions and Specimen Machine, address (with stamp), HARRIS BROTHERS, Boston, Mass. Local agents allowed liberal commissions.

PATENT DRIER IN ONE, TWO AND FOUR-POUND QUANTITIES. Patent Stone Polish, Grain Colors and Patent Gold Size. QUARTERMAN & SON, 114 John street, New York.

Zur Beachtung für deutsche Erfinder. Die Unterzeichneten haben eine Mitteilung, die Erfindern das Verhalten anzeigt, um sich ihre Patente zu sichern, herausgegeben, und verabfolgen solche gratis an dieselben. Erfinder, welche nicht mit der englischen Sprache befaßt sind, können ihre Mittheilungen in der deutschen Sprache machen. Etügen von Erfindungen mit kurzen, deutlich geschriebenen Beschreibungen beliebe man zu adressiren an MUNN & CO., 37 Park Row, New-York.

Improved Patent Blind Fastening.

Nearly all housekeepers must have experienced, at one time or another, the personal annoyance and injury to the windows which results from the violent slamming of the blinds to and fro in high winds. Many a sleepless night has been passed from the impossibility of keeping the shutters in a fixed position—they persisting in banging to and fro with every adverse blast. These discomforts have been overcome by the device herewith illustrated. The shutters, A, have a small iron arm, B, screwed to the top of them, which is provided with a hole in one end; into this hole one end of the small wire link, C, is passed, the other extremity of the same being connected with the spiral spring, D. This comprises the whole of the invention, and it is both simple and

**HICKS'S PATENT BLIND FASTENING.**

effective; no other fixtures or attachments are required. There are many advantages which this fastening possesses over others in common use, and the principal ones may be here enumerated:—In brick or stone houses this fastening is entirely out of sight, being under the window heads, and protected by them from being clogged with ice or snow. The top of the blinds are drawn together by it, and thus prevented from sagging or bearing too heavily on the upper hinges. It also dispenses with all staples or hooks in the house or window sill; such parts are generally the first to get out of order, and they disfigure the appearance of the building. These blind fastenings are made of the best materials and are very durable. In still sunny weather the shutters can be partially closed, so as to exclude the rays and heat of old Sol, and yet admit the light and air—a very desirable feature not possessed by other fasteners.

The patent for this invention was procured on May 2, 1861, by W. Cleveland Hicks, of 105 Hicks street, Brooklyn; further information respecting them can be had by addressing him, at that place, or C. D. Kellogg, Boston, Mass.

Collodion and Gun Cotton.

Collodion is a viscid semi-transparent fluid formed by dissolving pyroxyline (gun cotton) in a mixture of ether and alcohol. Pyroxyline is prepared by immersing cotton, flax, unsized paper, or any substance composed of lignine in a mixture of nitric and sulphuric acid. In 1838 M. Braconnot discovered that, when starch was submitted to the action of nitric acid it became converted into a peculiar substance, which dissolved in the acid, and was precipitated upon the addition of water. This substance, which was named xyloidine, was found to explode when dry, at a temperature of 356°. The subsequent researches of M. Pelouze proved this substance to be starch, in which one equivalent of hydrogen was replaced by one of peroxide of nitrogen. In 1846 M. Schönbein discovered gun cotton or pyroxyline, an explosive material,

soluble in ether and alcohol. His method of making it was by immersing cotton in a mixture consisting of one part of nitric acid added to three of sulphuric acid. After being immersed for five minutes the cotton was washed repeatedly in water and dried. The sulphuric acid contained in the mixture was simply to absorb the water formed in the process, which would otherwise weaken the nitric acid and cause it to dissolve the pyroxyline. Chemists soon recognized the analogy of these two compounds, starch and lignine being similar in composition, and cotton fiber being nearly pure lignine. Further research proved that there were three principal varieties of pyroxyline, depending on the strength of the nitro-sulphuric acid used. By employing the strongest mixed acids the most explosive gun cotton was pro-

duced; it contained the largest amount of peroxide of nitrogen, and was only soluble in acetic ether. This was the quality most adapted for blasting operations. The second kind, made with a slightly weaker acid than the last, contained less peroxide of nitrogen, was not so explosive, dissolved readily in ether and alcohol, and is now used for making collodion. The third form, made from still weaker acids, contained still less peroxide of nitrogen and was only combustible.

The Manufacture of Steel Petticoats.

The report of the French jury at the London Exhibition gives the following particulars on the importance of the trade to which the fashion of crinolines has given rise:—"The cotton required for covering the springs is worth, under certain circumstances, 30 francs for every hundred kilogrammes of steel, making a total of 1,260,000 francs for the 4,200,000 kilogrammes of that metal used for this purpose. The value of the raw material used is about 4,830,000 francs yearly, and the cost of the labor is 5,670,000 francs, without including the making of the petticoats. The steel springs for skirts made yearly in France weigh 2,400,000 kilogrammes, in England 1,200,000 kilogrammes, and in other countries 600,000 kilogrammes—in all, 4,200,000 kilogrammes. These springs are covered with cotton at 2 francs 50 centimes per kilogramme on an average, which makes the total proceeds 10,500,000 francs. Taking the steel in bars to be worth on the average 85 francs per 100 kilogrammes, its total value is 570,000 francs."

Cotton from China.

The *European Times* says:—"Strange events have been produced by the civil war in America. We are now receiving cotton, in driblets, it is true, from the most likely and unlikely places in the world. A ship has just arrived in the Mersey from China with a full cargo of this invaluable staple, and hardly a week

passes without the receipt of some of the same material from quarters where, before the war, it was hardly ever heard of, much less grown. But the most extraordinary revulsion in the cotton trade is the large exportation which is now taking place to the Federal States. During the last few days several cargoes of cotton have been sent from Liverpool to New York at full prices, the cost of which must be largely increased by the cost of shipment. This reversal of the ordinary laws of trade will doubtless continue as long as the war lasts."

A CORNELIAN containing a globule of water was recently found on the coast of Tuscany. These pebbles exhibit a crystalline cavity, which, when broken, is about one-third filled with water.

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