



#### Cotton Thread—American and Foreign.—

There are three cases of American spool cotton on Exhibition; two are from Fall River, Mass., manufactured by N. Buffington; the other case is from Willimantic, Conn., Taft & Bartlett, manufacturers. The cases from Fall River show very neat samples, especially the colored thread; they indeed do credit to the company in respect to neatness and taste in spooling and coloring; the thread from Willimantic is poorly spooled; the bobbins are rough and anything but neat, and the colors are very poor. This company has a wide field for improvement. The spool cotton thread which maintains the highest character in America, is that of Messrs. Coats, of Paisley Scotland, and the next to it is that of J. Clark & Co., Mile End, Glasgow. One of the Messrs. Coats lives in this country, looks after the business, and sees that the labels are not forged. By this manner of managing the business, and keeping good thread, its character has never suffered from spurious imitations. We expected to see some of their thread on exhibition, but looked in vain for a single spool; this, in our opinion, exhibits a want of proper sagacity on the part of the resident partner. As Britain supplies us with nearly all our cotton spool thread, of course, the only samples are to be found in the British Department, and one case displayed by a new thread company, is the best we ever looked upon; it is that of Godfrey Ermen, of Manchester; it is named "Patent Diamond Twist." The finish of it is beautiful, it more resembles linen than cotton, and is said to be as strong. J. Clark, & Co., of Mile End, exhibit three cases of excellent thread, one of white thread spools, one of black thread, and another of assorted colors. There is one case of excellent white spool cotton from Blackhall, & Co., Paisley; three cases of three cord from Jonas Ralph, Eng., (don't know what town;) two cases from Francis Hord, of Manchester; one two cord and one six cord, white and colored; one case from Wm. Danbarn, of Liverpool, containing all kinds; we suppose he is dealer, as he exposes the Wisebeck German thread, and Scotch Paisley; his samples are good. Jonas Brook & Bro., of Waltham Mills, England, exhibit some beautiful thread on spools and in skeins, and what is of more interest to us, samples are shown in all the different stages of its manufacture from the raw cotton to the first sliver and finishing twist. Therovings exhibited are beautiful; we wish that some of our manufacturers could show the like. The only other case exhibited is from J. P. Clark, of Leicester, England; it is the neatest put up thread in the Exhibition; the ends of some of the spools are of mother of pearl, and exhibit a taste equal to that for which the French are distinguished in such matters.

The manufacture of cotton thread is a very important one; we do not know how much our country pays every year to Britain for it; but the sum must be very large. The machinery for manufacturing cotton thread is very fine. There is but one factory in our country that attempts to make fine numbers, and that one is at Pawtucket, R. I. It is said that the humid climate of Britain favors the spinning of fine cotton, and that ours is unfavorable. This is not correct, an artificial humid atmosphere can be created in any of our factories with steam.—More American thread was made ten years ago than there is to day. Our first manufacturers were well patronized, but they exhibited a want of judgment; they looked more to quantity than quality, so as to sell cheap; by this course they sold their character, and it will be hard for our thread makers to retrieve that loss, however good their thread may be; perseverance, however, will reach the mark, and the Company at Fall River, if we can judge, are on the highway to complete success, and the establishment of the American character for good spool cotton.

**Cocoa Nut Fabrics.**—In the English Department,

in the gallery, there are some specimens of a new manufacture, as mats and such like articles, to which we wish to direct the attention of our countrymen. They are made from the interior of the husks of cocoa nuts, and exhibited by a Mr. Wilder, of London. Samples of the manufacture are exhibited in every stage of the process from the husk to the manufactured article. Such articles could easily be manufactured by some of our people.

**American Brocateles.**—There is one case of goods in the American Department which excites no small amount of pleasurable emotion in us, as they should in the bosom of every American; we allude to the American Brocateles manufactured at Seymour, Conn. There are richer brocateles, we believe, in the French

Department, and those from Manchester in the English Department, we think have no equals for beauty and quality in the Exhibition, but singly and alone, the American brocateles are the only ones in the world which have been and are manufactured by the power loom. The improvements in the power looms, to adapt them to the weaving of such fabrics, we understand, are a secret, and intended to be kept so. The company, we have been informed, have expended \$30,000 on machinery, and so far have been successful both in the making of the goods and in the profits of the manufacture. Success to the enterprize; the goods are very wide, and in this respect differ much from the narrow fabrics of a like character from the continent of Europe.

#### ORNAMENTAL TABLE.



Our illustration of some of the works of art, this week is an Ornamental Table in the French Department. The contour is pleasing, and the

skill displayed, exhibits rare ability in such manufacture. Our artists may learn much from a close examination of such articles.

**Quick Shooting—Fire Arms.**—In one court of the American Department, there are five kinds of swift shooting weapons of death, namely, three revolving fire-arms, and two of the breech-loading kind. The two breech-loading rifles are those of Sharp and Marston, both patented; they have been illustrated in our columns, and the respective nature of each described. Sharp's has a sliding vertical butt behind the charge chamber, Marston's has a sliding horizontal piston. The samples exhibited are well made and tastefully mounted.

The three revolvers are Colt's, Whitney's, and Porter's rifle. The first has a world wide fame, it is the oldest revolver in our country, and the first ever made to revolve the charge chamber by the action of the trigger. Whitney's pistol was illustrated and described in Vol. 8, Scientific American; it is a simple and good instrument. Porter's rifle has received many high testimonials respecting its qualities, but we have never seen it tested, the others we have. For quick shooting fire arms, and for good rifles, America occupies the foremost place in the world.

**Dunn's Electric Steam Boiler Alarm.**—Mr. Avery, we believe, well known as an electrical engineer, exhibits the steam boiler alarm of Arthur Dunn, of England, which has been patented in this country. It is well worthy of the attention of all engineers, and as it is exhibited in a working model, which is shown in section, also in drawings, any one who has even a limited acquaintanceship with electricity, will be able to get an understanding of it in a very few minutes. It operates by a column of mercury in a tube in the boiler, which, when the pressure is at a fixed standard, or below it, and the water at the proper level will not be in contact with the wire of an electric battery, but when the heat increases, either by an increase of the pressure of the steam, or the water getting low, the mercury in the tube will expand and close the circuit, which brings an electric magnet into operation, and rings a bell, which may be placed in the engine room or captain's office. By a key, the fireman can also telegraph at any moment with the engineer.

**Belgian Circular Knitting Machine.**—A most ingenious machine for knitting every kind of hosiery is on exhibition in the east end of the English Department. It is named "Jacquin's Patented Circular Knitting Machine" and was sent from Brussels, in Belgium. By simply turning a crank it goes on knitting, by circular motion, the hose or any other article of hosiery. The thread is fed from cops or spools placed above the machine, and is put on to the needles by one grooved toothed wheel, and then the locking of the stitches is put on by another tripping wheel on a different set of needles, and the stitches as formed are taken off the needles and passed around a drum in a complete knit fabric. No machine in the Crystal Palace exhibits more ingenuity and delicacy of construction. It is worth the study of every mechanic. At the French Exhibition in 1849 it was awarded a medal, and it took a prize medal at the "World's Fair" in London.

**Stockings Knit by Old Ladies.**—We noticed two pair of knit stockings lying alongside of one another in the English Gallery, which are worthy of a notice. One pair are long grey socks knit by Mrs. Rebecca Mayberry, of Casco, Me., aged 94 years. She is the widow of William Mayberry, an old revolutionary hero.

The other pair are long white ridge and fur lambs' wool stockings, knit by Mrs. Begg, of Ayr, Scotland, aged 82. She is the sister of Robert Burns, the plowman, the poet, and the sweetest songster that ever lived. They are beautifully knit, and are to be sold for charitable purposes. Some of Burns' countrymen will no doubt pay a handsome price for them.

#### Fair of the American Institute.

The twenty-sixth "Annual Fair" of the American Institute opened (after a postponement of four days) at Castle Garden, on the 10th inst. It has been our custom to present elaborate reviews of the most interesting objects on exhibition at these Fairs, but we find upon a careful examination this year, that this labor will be light, as the bridge, halls and walls of Castle Garden exhibit a wasted and sickly appearance. So far this is the most inferior Fair ever held by this

Institute; this certainly belies the report which a few months ago emanated from the Managers, namely, that they were to have the best Fair ever held in this city. We can find no excuse for the poverty of the display, when we reflect upon the great number of American applications for space which were rejected by the Crystal Palace Association. The city of New York never offered so many inducements to inventors and manufacturers to exhibit their productions, as it contains more strangers than ever visited it before. It really appears as if the managers trusted only to former mismanagement to fill their halls, instead of exhibiting greater energy and tact, to obliterate the great mischief which was perpetrated at the last Fair in relation to the "Rail Road Invention Prizes." They do not seem to have advertised in respectable and influential papers, nor to have sent out agents in order to induce a spirited rivalry among our mechanics and manufacturers, by soliciting them to send articles for display from their workshops and factories. Such conservatism will not answer in the present day; it is unworthy of the American name, and deserves reproof.

**A Catalogue of the Exhibition** we did not see. We had no use for such an article, and to save those of our readers who may visit it the expense of such an investment, we will present them with one—brief and comprehensive. As you enter upon the bridge, the first objects which fall upon the vision are a small collection of straw cutters, rakes, reapers, cider mills, hoes, horse powers, plows, etc., mainly the contribution of Allen & Mayer, of this city, who keep these articles for sale. Immediately at the left of the entrance are the Troy Bells, which have, for aught we know to the contrary, been standing there since Castle Garden was first used for these Exhibitions; no doubt they are good articles, but we should like to see a change, something which indicates progress.

Beyond the "bells," and nearer to the Castle entrance, are usually to be seen a number of inventions of a nondescript character, without name, use, or utility, attended by some curious genius, whose volubility of description considerably eclipses the practical character of their inventions. This exhibition always affords much amusement to the spectators. Unfortunately there is only one this year, of this class, but it is very good indeed.

At the left of the entrance, Hoe & Co. exhibit fine specimens of saws, as usual. There are also the same collection of stoves, furnaces, grates, hardware, brushes, locks, signs, banners, etc. At the right hand we have beds, bedding, furniture, scales, carriages and tinmen's tools. In the gallery are all kinds of fancy contributions, from the Lord's Prayer on a three cent piece, to the full-grown bed quilt, done by an old lady ninety-five years of age. Children figure in patch, stitch and crochet work, and our grandmothers emulate them in the same field, and with the same spirit of curiosity.

In the machine room, where there has usually been many things to interest us, and which, last year, was the real center of attraction, there is now almost "the silence of despair." There are a few articles and machines, however, of real merit, such as "Gardiner's Ore Separator," "Nevin's Cracker Machine," "Sharp's Horse Power," "Dickinson's Cattle Car," "Switzer's Self-holding Screw Driver," "Deitz's Hames," "Dixon's Black Lead Crucibles," "Crane's Self-acting Chain Stoppers," (an excellent improvement for ships, it secures every link of chain as fast as it is drawn in, in weighing the anchor,) "Jones' Topographer," "Gee's Soda Water apparatus," "Otis' Mortising Machine," "Cochran's Ore Crusher," "Arnold & Felton's Boiler Feeder," "Week's Rotary Mortising Machine," (it has an endless chain cutter, and is manufactured by Cobb, Mason & Hill, Jersey City,) "Whitney's Tinsmith's Tools," and a few other articles, without novelty. The machinery displayed, is driven by a 30 horse power engine, made by Hughes & Phillips, Newark, N. J.

Other objects of interest, which may be presented during the Fair, will be noticed in future