

A. Prall & Co. run 5,352 spindles and 28 cards, consuming weekly 14,000 lbs. of cotton, spun into yarns. About 85 hands are employed under the superintendence of Wm. Ridgeway. This establishment was built on the site of the old Carrick mill, and went into operation in the early part of 1858. It is a massive brick building, about 175 feet long, three stories high, and fitted up in the best manner.

Danforth, Cooke & Co. employ 65 hands and run 2,600 spindles, consuming 7,000 lbs. of cotton weekly, made into yarns. Their factory has recently undergone a considerable enlargement.

The Jefferson mill, owned by Jacob Rogers, contains 3,400 spindles and employs 70 hands. Weekly consumption of cotton, about 6,000 lbs. A. Polhamus is superintendent.

The Union works (Thos. D. Hoxsey's) contain about 3,000 spindles, and consume 7,000 lbs. of cotton per week, made into twine, wicks, warps, &c. Number of employees, 60.

The Boudinot mill was built in 1857 by E. B. Atterbury, its proprietor and manager. This is the only cotton factory in Paterson driven by steam power, an experiment in which Mr. Atterbury appears to have been quite successful. About 40 operatives are employed and 1,500 spindles run, making yarn and twist. Weekly consumption of cotton, about 4,000 lbs.

Mr. Crabtree is also starting some cotton machinery in an apartment of the Hamilton mill.

The aggregate number of cotton spindles running in Paterson may be set down at 48,000, while that of the employees reach to about 1,200. The wages paid to each of these will average \$3.50 per week, or \$225,000 per annum. The quantity of cotton consumed annually approaches six million pounds, from which, if 15 per cent be deducted for waste, we have a total of five million pounds of yarn spun and a million and a half yards of duck, Canton flannels, &c., woven. To attempt making an estimate of net profits would be futile, as probably no two establishments show a like result.

Among the more prominent early manufacturers of cotton, besides those already named, may be mentioned Daniel Ridgeway, Mark W. Collet, Wm. Jacobs, Rutan & Benson, Jackson & Magennis, and Robert Carrick. Mr. Ridgeway for many years carried on the business in the Industry mill, in partnership with Wm. Dickey, the oldest native of Paterson. Mr. Collet occupied what is now the Oakman mill, and Mr. Jacobs the Jefferson mill. Mr. Carrick was engaged from 1823 to 1848, including the disastrous era of 1837-8, spinning and weaving. His mill was burned down by an incendiary in 1848, when Mr. Carrick retired to private life, to the general regret and loss.

By the introduction of power looms hand-loom weaving was for a long time driven to the wall. About the year 1838, however, it was revived by John Parker, who manufactured towels, table covers, &c. Subsequently, Abm. Croysdale, Allan Knowles, and others, embarked in the same business, and at present about 60 looms are at work for some half a dozen parties in town. Among these Wm. S. Malcolm has distinguished himself by the production of new and superior fabrics, such as woolen and cotton quilts, counterpanes, wool damask covers, hoop extension tapes, and the like. Mr. Malcolm began in 1848, and in 1853 received the only premium given at the New York World's Fair for such goods. He also received a premium at the Castle Garden Exhibition in 1854. From 20 to 25 looms are at work for Mr. Malcolm, and his fabrics command an extensive sale over the country.

Under the head of cotton manufactures may be mentioned the napping of Canton flannel, carried on in the Beaver mill by George Wylie, who runs 28 of these machines, with which he is prepared to turn out 30,000 yards per day. His work is all done to order.

It seems to be difficult, if not impossible, to naturalize the manufacture of both cotton and wool in one place, and Paterson affords no exception to the rule. As early as 1813 wool spinning was commenced on a small scale in the Nightengale mill, by John Tice, agent for a New York firm. The fabrics made were coarse, and woven on hand looms in private houses. The parties afterwards purchased the Beaver mill, falling in with the current of that day, which drifted towards the cotton interest. Mr. Tice subsequently prosecuted the business in a small mill near the Little Falls. The Holsman mill was built

for the woolen manufacture by two Frenchmen; also the Mallory mill by John Traverse, and Harmony by a Mr. Berry. All these followed the example of the Beaver. Cotton was king. The only other attempt made was by Benjamin Bailey, who started to spin carpet yarns in 1846, and now runs a few cards in making these.

Morrow's mill, situated half a mile east of Paterson, has proved successful in the woolen business. This was built in 1810, as a cotton factory, by Wm. Rawson, from whom it passed into the hands of the late John Morrow in 1824. Mr. Morrow turned it into a woolen mill, and since then it has been rebuilt and greatly enlarged, until it gives employment to 50 persons, who manufacture printers' blankets, paper-makers' felts, and the like. C. W. L. F. Morrow & Co., of New York, are the proprietors; John Marsden is superintendent.

The Anglo-American mill at Haledon (formerly Brundred's) was purchased by Messrs. Hodges, agents, in the Fall of 1857. After expending large sums in resurfacing the place, operations were commenced in the following summer. They now employ between 300 and 400 hands (half of them inside the works), and carry on an extensive business in making hosiery and stockinet cloth for linings to india-rubber goods. The merinos made at these works are a beautiful fabric, composed of wool and cotton. Most of the yarns required are spun on the premises; there being 2,000 cotton and 1,000 wool spindles at work, the whole producing 1,200 lbs. of merino yarn per week, besides which considerable purchases of yarn require to be made from other quarters. This is woven on French and Belgian machinery into heavy cloths for coats, glove cloth, shirts, drawers, stockings and counterpanes (plain or fancy). The proprietors are now making arrangements to turn out 5,000 pair of stockings per week. Independent of these the Messrs. Hodges have done much to improve the neighborhood. Their works are situated about two miles from the center of Paterson.

Carpet-weaving has for many years been successfully carried on by Robert Beatie, at the Little Falls. Mr. Beatie has lately completed a most substantial and handsome factory which he is filling with power looms and other machinery, in addition to his factories previously in operation. His three-ply carpet is pronounced equal to anything in that line ever produced.

[To be continued.]

ABORTION IN COWS FROM ERGOT

Abortion in cows arises from so many causes, and many of them so occult, that it is scarcely possible to provide against it. That it spreads, when once established, is attributable to sympathy, which has long been admitted, and this sympathy is most probably stimulated through a delicate smell acting on an excitable imagination; "for it has been stated," says Youatt, "that a cow is an animal considerably imaginative, and highly irritable, during the period of pregnancy." The guarding against this is evidently the immediate separation of the affected animal, the purifying and cleansing of the house, accompanied, of course, by thorough and perfect ventilation. But there are many pre-disposing causes of abortion, the mention of which may sufficiently point out the most efficient ways of avoidance. One of these causes, not in general, however, to be apprehended in Ireland, is high-feeding. Cows, when in an extravagantly high condition, are in continual excitement, and constantly liable to inflammation in the uterus, and consequent abortion. A second cause has been found to arise from feeding with bad hay. A third has been observed to occur in the autumn-grazing of cows upon fields thickly covered with hoar-frost, or, indeed, on any pasture which has a tendency to produce inflammatory disorders. A fourth cause is grazing upon pastures containing acrid plants, or upon the coarse, rank herbage of low, marshy, and woody grounds. A fifth cause is the drinking of stagnant or putrescent water. A sixth cause, the drinking of water impregnated with iron. A seventh, the feeding on hard, unsucculent food, as straw, &c., thus occasioning cows to drink large quantities of water, injury from fatigue, or from blows, and the prevalence of any bad odor, probably of a vegetable nature. But a very certain cause, which has hitherto received but little attention, is noticed in the leading article of the *Agricultural Gazette* of Sept. 24th, in ergot, the existence of which has been little suspected in the seeds of grasses of pastures which have been grazed through the summer, in which the stock having avoided the seed stems, these have been enabled

to fulfill their special functions and produce seed, which, subsequently became diseased; and it remarks, "It is clear that if prevention is the object to be aimed at, this will be best attained by keeping breeding stock from land thus bearing a diseased produce; removing the breeding cows and heifers, say in July, and keeping them afterwards upon land which had been mown that season. There are very many districts where the climate, from being dry, does not render this precaution necessary; but, at the same time, there are numerous tracts of land where the moisture of the climate acts upon the grass seeds and favors the growth of ergotized grass." Ergot appears to occur most frequently on stiff, wet, undrained land. Ergot is well known to effect, powerfully, uterine action, for it has been much used beneficially in cases of difficult parturition in the mare, the cow, and the sheep; but it ought only to be employed by cautious and skillful practitioners, and it ought never to be administered even by these, and especially with the cow, except in cases of extremity.—*Irish Agricultural Review*.

WHITE LEAD IN PHILADELPHIA.

We copy the following instructive information from our cotemporary, the *United States Gazette*.—Among the numerous manufactures in which Philadelphia has attained conceded pre-eminence, is that of chemicals and white lead, in which so important a part is performed by the firm of Wetherill & Brother, Second-street, near Arch. The history of this firm is replete with interest, shows that when a man brushes back his hair and buckles down to business, there is no assigning any limit to his achievements. The business now carried on by Messrs. Wetherill & Brother has been carried on from generation to generation, through a long succession. It was founded by Samuel Wetherill & Son, who for many years were extensive importers of paints and chemicals, but who became open to the conviction that a vast deal of unnecessary importation was then done. They set at work, therefore, in the belief that American skill was as potent as foreign skill, and that most of the articles which they then imported could be made at home. The firm was composed of patriots. The senior aided his country in the war of independence, for which resistance he was discarded by the Society of Friends. The Free Quakers, however, received him with open arms, and, as their preacher, he often officiated at the meeting-house which still stands at the corner of Fifth-street and Arch.

When Water-street in accordance with the will of Stephen Girard, was widened, and the old store was taken down, the firm removed to No. 33 North Front-street. The warehouses and mill of the old house were in Combs' alley, in the rear of Second-street; and the very first stationary steam-engine ever used in the United States was employed by them in grinding paints. The present firm ultimately obtained the lots Nos. 47 and 49 North Second-street, upon which stood two old stores, and upon this they reared the present splendid business edifice which they now occupy.

Their works are at West Philadelphia, where they have built a huge structure that looks like a cross between the Eastern Penitentiary and the monastery of St. Bernard on the slope of the Alps. Here they produce white lead of a character whose excellence is recognized in every quarter of the Union. The present works in West Philadelphia were built on an enlarged and improved plan by the late John Price Wetherill and Dr. Wm. Wetherill. The works produce from pig lead about 1,600 tons annually, and also yield large quantities of litharge and red lead. Besides this, they produce nitric and muriatic acid, ether, both nitrous and sulphuric, the various preparations of mercury, alcohol and burning-fluids, together with many other chemical preparations, beside refining camphor and niter.

AN AMERICAN ROUTE TO CHINA AND JAPAN.—The schooners *Lewis Perry* and *San Diego*, from Petropaulovski, lately arrived at San Francisco, the one having made the passage in 23 days, and the other in 24, from Japan. Had these vessels connected with the regular mail steamers, we should have had news from Japan in 43 days—as fast as it comes by the European route. But suppose the communication between Hakodadi and San Francisco was direct, and by a line of steamers connecting with the Atlantic ports, or, as it may be, at no distant day, with the trains of the Pacific Railroad, would not all our news and most of our light trade go and come by that route? It is fair to presume that it would.