



NEW YORK, JUNE 24, 1848.

**Selling an Invention before a Patent is secured.**

There is no point in connection with inventions, that so much inquiry is made about, as the right by law to sell an invention without injury to a "full and exclusive right," prior to the securing of a patent. Judge Nelson's decision is quoted as adverse to such a sale, and there are strong fears that the sale of an invention before a patent is secured, invalidates the patent.

We know that it is possible for eminent jurists to make wrong decisions—decisions adverse to the very spirit and letter of the law. This would be but a small affair were it not for the pernicious evil of subverting or making such decisions paramount to the law itself.—This is so painfully true regarding common law, that it is all whittled down to the accumulated opinions of men regarding it. These commentators are as widely different in their notions as our scriptural ones, but there is this great difference between the two classes, the people may believe in any legal creed they choose, but they must abide by the teachings from one altar, and it is not every one that dare minister there. This may be right and it may be wrong, but the 7th section of the Patent Laws of March 3d, 1839, is certainly clear enough in reference to the right of sale of an invention for two years prior to the securing of a patent (if sold with the declared right of personal reserve.) That section reads thus:—"And be it further enacted, that every person or corporation who has, or shall have, purchased or constructed any newly invented machine, manufacture, or composition of matter, prior to the application by the inventor or discoverer for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture or composition of matter so made or purchased without liability therefor to the inventor, or any other person interested in such invention; and no patent shall be held to be invalid by reason of such purchase, sale or use, prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public, or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent."

**Report of the Patent Office.**

The Report of the Patent Office for 1847, is just issued from the press, not in its "dilatatory career," from any fault of the Patent Office but from the unsurpassable carefulness of Congressional legislation to make the claims of honest industry and inventive genius subjects of moment to the country.—Party spirit, bitter personal feelings, war, blood and bones, are finer subjects for the orator to declaim upon from the forum than encouragement to science and art, or protection and justice to our inventors. It may be that science and art are subjects of incomprehensibility to the majority. In that case, some charity must be exercised. But it is a humiliating thought to us to reflect upon any official department of our government being ten months in arrears with their business, as our Patent Office has been during 1847. Expeditions to the Dead Sea, &c are commendable, we like to encourage scientific discovery and research, but encouragement and justice to the discoveries in science and art at home, should first be covered with the wing of home protection. This has not been done to our inventors, or else the Reports of the Patent Office, containing more truly useful information than all the Reports presented to Congress during this term put together, would not have been so long in appearing before the public. The Reports of the Examiners, too, would have been enriched with minuter descriptions than they are, owing to the "embarrassed

condition of the examining corps," as Examiner Page says, "not being able to give a more patient investigation of the subjects brought before them." Examiner Fitzgerald says, "that nearly half the applications referred to his desk during the year remain unnoticed in consequence of a notorious inadequacy of force to make the requisite examinations." We trust that these complaints will never need to be made again.

Mr. Burke, the Commissioner, recommends for the benefit of inventors, the decisions of the Chief Justice of the District of Columbia, as made upon appeals from the decision of the Commissioner of Patents, to be published by Congress. This recommendation is one of interest to inventors, and the Commissioner is entitled to their thanks for his recommendation, as this was a subject unthought of by others, the importance of which is apparent at a glance.

**Mechanics Associations.**

Mechanics' Institutions, besides being schools for the education of the intellectual faculties of the individual, ought to provide equally, if not, more fully, for the cultivation of the moral part of his character. This, it appears to us, is the most important element of the man—that which tends to make him a good member of society. Further, by bringing him up to this standard, there is much reason to believe that his intellectual faculties will be more susceptible of elevation, more easily awakened, and more vigorous in their efforts. The error, which many founders of Mechanics' Institutions, fell into, was the assumption of an intelligence which no previous training had awakened: they appealed to a wrong standard, they measured the capabilities and tastes of the laboring man by a standard which existed only among persons, who had enjoyed, from childhood, means of instruction more complete than was sought to be provided for the working man for the first time in the middle of his life. This error was natural. Let us now improve by experience: most of our Mechanics' Institutions are composed of working men—let them study their own wants, the wants which they know to be most felt by their order, laying aside that the details of science alone are appropriate subjects of attention, and that amusement is folly, and mirth iniquity, let them, in fact, study to furnish to their institutions the largest possible amount of sound instruction combined with the highest possible amount of cheap and innocent excitement. In this their duty consists, and in this will be found the success they desire, and to this we have always pointed. With scientific subjects we have always combined a moral and cheering encouragement in the pursuit of happiness, by the practice of noble actions. By such means our mechanical classes alone can be elevated.

**Patent Suit.**

The suit *Batten vs. Clayton* and others before Judge Kane of the U. S. Circuit Court, Philadelphia, for the infringement of a patent right for the combination of a pair of toothed rollers to break coal, with a screen to sort and clean the same,—that is, for turning simultaneously, by connected gearing, two things alleged to have been heretofore turned separately, and not together,—has been laid over until the next term.

The hard coal we burn owes its uniformity of size to the use of cast iron rollers, having projecting points upon the surfaces. Between these rollers, revolving with great speed, the coal is dropped, and being cracked into small pieces, it falls thence into a revolving wire screen of different meshes, which sifts it into five different sizes, rejecting the dust, &c. Mr. Batten claims to be the first who combined the breaking and screening apparatus together. If this is correct, his patent will be sustained, unless the same principle is borrowed from another machine, that may be devoted to a like purpose although it may be a different article from coal.

**Lumber.**

The lumber business in Pennsylvania has been exceedingly brisk during the season. The lumber merchants have made very heavy purchases.

**Machinery for a Cotton Factory.**

Having frequently received communications from different gentlemen in the South and South-western States relative to the price of certain machines and the average amount of the whole machinery, &c. connected with a Cotton Factory, we have availed ourselves of the valuable and thoroughly practical knowledge of Mr. Montgomery, whose writings in the Scientific American have attracted so much attention among our manufacturers.—The following will be found to be of much importance to all those desirous of engaging in the Cotton Manufacture.

**Cost of 1000 "Ring" Spindles and Preparation.**

| MACHINERY.                         |                |
|------------------------------------|----------------|
| 1 Mason's Whipper, :               | \$75           |
| 1 Picker and lapper, :             | 350            |
| 4 double doffing cards, :          | 1000           |
| 1 Drawing Frame, 3 heads, :        | 225            |
| 1 Slubber, 36 spindles, :          | 700            |
| 1 Fly Frame, 84 spindles, :        | 800            |
| 1000 Ring spindles, at \$4 each, : | 4000           |
| 2 Reels, \$35 each, :              | 70             |
| 1 Bundling Press, :                | 50             |
| 1 Baling Press, :                  | 75             |
|                                    | <b>\$7,345</b> |
| FIXTURES.                          |                |
| 4 sets Card Clothing, at \$60, :   | \$240          |
| Cans and Bobbins, :                | 200            |
| Shafts, Pulleys and Belts, :       | 700            |
| Turning Lathe, :                   | 50             |
| 1 10 horse power engine, :         | 1200           |
| Extra charges for fitting up, :    | 150            |
|                                    | <b>\$2,540</b> |

Total cost of machinery and fixtures, \$9,885

The above is a detail of the cost of 1000 spindles and preparation, without looms.—Without going into detail, \$10 per spindle is a safe calculation. 100 spindles is the common estimate per horse power.

12 looms with accompanying machinery consume one horse power. 40 looms should be allowed to 1000 spindles for spinning medium Nos. say 20's to 30's. Looms cost \$65 each.

The cost of 1000 spindles with preparation and weaving machinery, would be as follows:

|  |                 |
|--|-----------------|
| Whole cost of 1000 spindles and preparation, (deducting price of Reels and Bundling Press, which are not needed for weaving) is, : | \$9,765         |
| 40 Looms, at \$65 each, :  | 2,600           |
| 1 Dresser, :   | 450             |
| 1 Warper, :  | 100             |
| 1 Spooler, :   | 80              |
| Extra charge for steam engine, say :   | 350             |
| do do for shafts and belts, :  | 250             |
| Total, :   | <b>\$13,595</b> |

From this detail it appears that the cost per spindle with looms, is \$13.60, but a safer calculation would be \$14 per spindle.

For 100 spindles without looms I would recommend a one story building 100 feet long and 50 feet wide. If looms are added 140 feet long and 50 feet wide. For two or three thousand spindles, let the building be two or three stories high, each story the same in capacity as above recommended.

As the cost of labor and materials in different localities vary, I refrain from giving any estimate of the cost of building a mill to contain the above machinery. Any one can do this with the capacity and cost of materials given. I would remark, however, that a building at the South, with the same cost of labor and material, could be erected much cheaper than one adapted to our Northern climate.

The return from cotton in well arranged mills is 85 per cent, although many return 75 per cent.

A loom in fair operation will produce 32 yards per day, running at 110 picks per minute, and making cloth 64 picks or threads of weft per inch.

The Matteawan Co. have sent machinery to the South for a large number of mills, and could probably furnish it as cheap and at as short notice as any machine makers in the country; although the best means for a Southern company to start a mill well, and in the shortest possible time, would be to engage a good practical manufacturer, and let him put the mill in operation and furnish a competent superintendent, for a specified sum. This plan has been adopted, and I believe with success. Respectable persons can be found to

take charge of new factories, if the locations are agreeable. Respectfully yours,

WM. MONTGOMERY.  
Craigville, Orange Co. N. I. June 8.

**Influence of the Fine Arts.**

Wherever the arts are cultivated with success, they almost imperceptibly educate the general taste, and make politeness of mind keep pace with refinement of manners. They are to a highly commercial and opulent state of society what chivalry was to the feudal system; they wear down its asperities, correct the selfishness of its action, enliven the dullness of its repose, and mitigate the fierceness of its enjoyments. Where the arts are well understood, fusion cannot be so monstrous or fantastic as where they exert no salutary dominion over the fond love of variety. The source of excellence in art being a judicious observation of nature, and a right perception of her principles of beauty and symmetry, a closer adherence to nature will mark the fashions of society polished by their ascendancy than can distinguish the habits of people without the sphere of their influence. Hence the barbaric nations, where there is much wealth, never expend it in such a way as proves they have any notion of the pleasures of refinement. They endeavor to attract admiration through the vulgar passion of adornment, which is in a moment excited, and as suddenly expires, rather than create a rational respect by consulting for the praise of enlightend opinion.

**Lead and Zinc Mines of Kentucky.**

We understand that in the most valuable lead mine lately discovered in Crittenden Co. Kentucky, a large deposit of zinc ore accompanies the vein, and that 30 or 40 tons of the ore had been taken and thrown aside as entirely valueless, until the recent visit of a practical German chemist, who pronounced it far more valuable than the lead and equal in its quality and extent to the best zinc ore of Germany, where the zinc mines are sources of great wealth. We believe there are no zinc mines ever yet discovered in this country of sufficient value to pay for working. Cobalt and Cadmium blende have been found in the same vein. The latter is found in the zinc ore, and yields an unusually large per centage. It is one of the most rare and valuable metals.

**Survey of the Copper Mines.**

Dr. T. C. Jackson, of Boston has arrived in Washington, to make preparations for his tour westward. The Government has chosen him in conjunction with Dr. D. D. Owen, to make survey of all the regions of Lake Superior, and the waters of the Upper Mississippi, with reference more particularly to minerals. Dr. Jackson will survey the Lake Superior Land District, which includes the northern part of Michigan. This is a very important mission, and the reports when made and printed, will be of great service to the country. They will embrace a variety of departments in science.

**Scientific American—Bound Volumes.**

The second volume of the Scientific American, bound in a superb manner, containing 416 pages choice reading matter, a list of all the patents granted at the United States Patent Office during the year, and illustrated with over 300 beautiful descriptive engravings of new and improved machines, for sale at this office—Price \$2.75. The volume may also be had in sheets, in suitable form for mailing—at \$2.

The back Nos. of the present volume may also be had upon application at the office.

**THE SCIENTIFIC AMERICAN.**

Persons wishing to subscribe for this paper have only to enclose the amount in a letter directed (post paid) to

MUNN & COMPANY,  
Publishers of the Scientific American, New York City

TERMS.—\$2 a year; ONE DOLLAR IN ADVANCE—the remainder in 6 months

Postmasters are respectfully requested to receive subscriptions for this Paper, to whom a discount of 25 per cent will be allowed.

Any person sending us 4 subscribers for 6 months, shall receive a copy of the paper for the same length of time