

Scientific American

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To our Subscribers.—The End of the Volume.

This number concludes the Fifth Volume of the Scientific American. From a small beginning, it has grown to have the largest circulation of any other paper devoted to the same objects, in this or any other country. For our extensive circulation we are more indebted to the interest which our subscribers, universally, have taken in its prosperity, by the zeal they have exhibited to promote its circulation and widen the circle of its influence, than any other paper ever published in our land. To you we can say with gratitude, "Your breath hath filled our sails." We have the same trust and confidence in the good will and kindness of our subscribers that we ever had, and which has never disappointed, but more than realized our expectations.

In casting a glance over our labors for the past year, we cannot wrap ourselves up in the habiliments of self-pride and say, "we have done all things to perfection." Mortals are not faultless; all have their faults—the best have their failings. We have always endeavored to conduct the Scientific American impartially, honestly and independently. Without fear, or regard for favor, we endeavor to speak and do what we think is just and right, and leave the consequences to the Great Ruler.

As a paper devoted to science and the mechanic arts, it has not its equal in this country in any respect. We do not say this as a mere matter of boasting,—this is universally admitted on all hands. We present to our readers more new inventions, illustrated, more real every-day practical information, and a greater variety of well packed condensed matter every week, than any other paper. A yard of cloth is not valued as a *yard*, but according to its quality, neither should any person value a scientific and mechanical paper by its size, but by what it contains. Our advantages in obtaining useful information, and a knowledge of what is new in the arts, are far superior to those of any other paper in the United States. Our correspondence is very extensive, and so is our acquaintance with practical and able inventors and mechanics. This acquaintance has been of many years standing, and, with many, our friendship is of the most intimate nature. This enables us to obtain more new and useful information relating to inventions and discoveries, than any other paper in our country. To inventors, our weekly list of patent claims are worth the whole price of their subscriptions, and no other paper in our country presents anything at all like the information we have presented, and can present, relating to patents and new inventions. We have added improvements to every new volume, and we will make Volume 6 superior to all its predecessors. We are determined to labor more assiduously and fervently than ever, to maintain the character of the Scientific American, as being "The Best Mechanical Paper in the World." We hope our subscribers will try and get others to club along with them for Volume 6. We intend to lay out considerable more expense on it than on our former volumes. It will be the best Encyclopedia—as a weekly paper—of mechanical and scientific knowledge, ever published. We hope subscribers will send in their subscriptions early. We can assure every man, that he will get the full value of his money, and will never repent having become a subscriber to the Scientific American.

Engravings.

It has always been allowed that the engravings in the Scientific American, far excel those of any other mechanical paper; we will still keep at the top of the sheet. Our next volume will present the greatest number of unrivalled illustrations ever presented in a weekly paper. Our readers may depend upon it, that their subscriptions will be seed sown upon good ground, which will spring up and bear them good fruit.

The Great State Fair.

We took the opportunity, last Friday, of visiting the State Agricultural Fair, held at Albany. We were assured that the day was the most pleasant of all the preceding ones of the week, as a rain storm had laid the dust of that dusty, dusty road, between Albany and Troy. The Fair tents covered an extensive area, but not more so than those for refreshments, gambling, and all manner of Riff-Raffs. In one place there were Irish jigs going on, as a faithful specimen of the *finest peasantry*, full of humor as at Donnybrook. Circuses, raree shows closed up the back ground, with "warm meals at all hours," by a representative of the press, who, no doubt, had the wisdom to discern that food for the stomach was as necessary as food for the mind and a feast for the eyes. Along with much evil there was much good.

With the live stock it is not our province to deal, although we have some skill there, Hal, and have been held a connoisseur in beef and mutton. We can, however, say a good word for what we saw of that, more than we can say for the drinking and dancing. "Mechanics' Hall" was the best situated tent on the ground, and the most interesting. It is morally impossible to give an abstract notice of all we saw. We saw many good, new, and useful things, and many, no doubt escaped our notice; and we also saw much that was literally worthless. Mr. Emery, of Albany, exhibited the best and greatest number of agricultural implements that we ever saw collected in one place. He was awarded quite a number of prizes; and so were some of our old friends, whose machines had appeared in the Scientific American. Among these we may mention Lerow & Blodgett's Sewing Machine, on page 1, Vol. 5., Sci. Am.; Mr. Wright's machine from Rochester, for sawing ship and other curved timber, which is illustrated in No. 3 (same volume),—this good machine, as it should, commanded a great deal of attention; Bertholf's excellent Straw Cutter, on page 52, was there; and here let us mention another straw cutter—an entirely new one—which we saw, viz., that of Cleveland & Baker Adams, of Jefferson Co., N.Y.; this straw cutter cuts the whole length of the straw up into pieces at one revolution of the roller. It is very simple, no feeding rollers are used, the feeding blades, of which there are a great number, revolve on a long roller, and cut the straw against stationary knives. Mr. Adams, from Hadley, Mass., was there with his improved Felloe Machine, and his superior Dog for planing machines, all of which have been illustrated in our columns. The Apple Paring Machine of Mr. Weed, illustrated on page 84, was also much admired; Mr. Brown's Candle Mould, illustrated on page 164, was the subject of special notice; Dick's Anti-friction Press and Punching Machine, illustrated on page 220, was exhibited by Mr. Holmes, of New York, and had no equal there; Groshon's Patent Corn Planter, illustrated on page 327, was highly admired; Mr. A. H. Brown's hose coupling, on page 332, was in use on the ground; Mr. Brown is a very ingenious and intelligent gentleman. The improved Plow of Mr. Baker, of Troy, on page 348, had not its superior there, although a plow, belonging to Messrs. Starbuck, surpassed all others, in our eyes, for superior workmanship. Mr. Ide's improved Grain Drill, page 372, and the improved Grain Separator of Messrs. Herring, on page 408, were held to be unbeatable in their line. Churns and horse-powers were abundant,—some of the latter were good, and some were worthy of a more benighted age. As usual in all Fairs, there were plenty of Washing Machines, the newest and best of which was that of Mr. Joseph Hall, now of Lansingburg, N. Y., it is named the "Concavo and Convexo Roller Washing Machine," it is simple, only consisting of two rollers and an endless apron; the apron saves the buttons, &c., and allows delicate articles to be safely washed. The rollers are graduated with coiled springs to accommodate themselves to the washing of all kinds of clothes.

Mr. Winnie, of Albany, had a steam engine in operation, with his "Patent Cut Off," which appeared on page 268, Vol. 4, Sci. Am.; a

section model, showing the whole interior operation, was at work; this improvement should be more extensively introduced—it has but to be seen to be admired. Our friends Hoard & Bradford, of Watertown, N. Y., had one of their unique and compact engines and boilers in full swing; it attracted no small degree of attention. R. V. DeWitt, C. E., of Albany, had a model of his Helex Boiler there; it may be termed the "Turbine Boiler;" it is undoubtedly an economizer of fuel. John Rodgers, of Albany, a first rate engineer and machinist, exhibited the best tobacco cutting machine we ever saw; it is a rotary cutter, with two curved arms, on which the knives are placed; it would make a first rate power straw cutter. Mr. John Gibson, of Albany, had his "Woodworth's Planing Machine" in full operation; the character of this machine being so well known, we need say no more about it than to state, that the principle embraced in the same patent, was employed in a separate machine, turning out excellent mouldings.

Albany and Troy being celebrated for the manufacture of stoves, the number exhibited struck strangers with astonishment; it is no easy matter to say anything new about stoves—we believe the majority of them are specimens of unsound devising; we saw one, however, in full cooking sway, viz., that of Mr. Shaw, of Albany, which gave us a very favorable opinion of its merits: it applies the heat thrown down below the grate to the whole purposes of cooking and baking also. Mr. R. Hilson, of Albany, patentee of a Hot Air Furnace, exhibited a model grate for coal-burning locomotives, and equally applicable to stoves; the centre of it is a hollow elevated half sphere, to prevent the caking of the coals; this grate is an excellent one for stoves.

Messrs. Hotchkiss & Sage, of Windsor, Broome Co., N. Y., exhibited their Needle Iron for saw mills, and an improved step for plumbing the spindles of stones and wheels; it is arranged to move the spindle plumb in a bush according to the load on it; it is a new and good invention. Mr. Rowe, of Albany, exhibited a most excellent and ingenious machine for splitting and rolling leather; we have never seen a machine to be compared to this in any manner, for the accomplishment of the same objects.

There were some excellent carriages on the ground. A splendid Brougham, from the coach factory of Gould & Co., of Albany, took our eye; Eaton & Gilbert, of Troy, exhibited a fine Omnibus. Mr. Wemple, of Albany, exhibited a carriage of great beauty. There were two carriage improvements from Old Schoharie Co., which did credit to the inventors. One was the Patent Coupling of D. W. Seeley, of Carlisle, for vehicles, which has not and never had its equal in our own nor any other country. Our cotemporary, Mr. S. Hosack Mix, editor of the "Schoharie Patriot," exhibited a Wagon for Plank Roads, with his improved "oscillatory rolling axle," which is the grand desideratum for changing the axle to accommodate itself to the line of draught in every case where an obstacle is presented or a hill to be surmounted, and at the same time it answers as a *break* in descending steep grades. This is a good invention.

In Manufacturers' Hall the show was good, but the place was mud to the knees; it was impossible to do justice to ourselves or others without a pair of "California boots." Among the many things presented, we were especially struck with some splendid specimens of coloring on cotton, silk and wool, by P. B. Leddy, of Albany. Knowing the great amount of practical chemical knowledge required to be good at this art—an art to which we are all indebted for personal decoration, and respecting which so many are ignorant—we cannot but say that the specimens exhibited did great credit to Mr. Leddy, and were highly honorable to the establishment from which they came, viz., Mr. Giffen's. Mr. Roy, of West Troy, exhibited some shawls made at his factory, which, in every respect, rivalled those made in Scotland. We also saw some leather which was tanned by Hibbard's new patent process in fifteen minutes; some may say, "this process is too quick to be good;" well we say "it is not, if the leather is a test?"

The samples were well tanned; the calf leather was equal to the French. The discovery is a chemical one. Being determined to speak of nothing but what we saw with our own eyes, we must say, that for want of Jack the Giant Killer's boots, and owing to the great crowd, we had to soon to bid adieu to Manufacturers' Hall, taking a last glance at the unrivalled display of Jewelry, by our old friend James Meeks. Ah! here let us add that we noticed some of the linen thread made at Lansingburgh, by Mr. Fisher; this being the first linen thread made in America, it did some credit to Mr. Fisher, but very great improvements have yet to be made before it can rival that made in the north of Ireland and Scotland.

In Floral Hall the exhibition of Fruit and Flowers, was refreshing to the eye, and in the centre were the musical instruments, which were delightful to the ear. A piano with the Dolce Campana Attachment, which appeared in No. 9, Sci. Am., from the manufactory of Boardman & Gray, was a splendid instrument, and so was a six octave, by Ballantine & Barhyt; this instrument exhibited great skill and execution in workmanship.

Owing to the deplorable state of the ground, and the great crowd pushing and driving, many good things, which we would like to have seen, were no doubt overlooked. Two objects of our visit to the Fair were, to see what was new in machinery, and to find out what was intended for the "World's Fair." Respecting the latter we were disappointed, and respecting the whole influence of the Fair, there was much that pleased us, and we saw much to condemn. We will briefly give our views on these points next week.

London Industrial Exhibition

At the Meeting for the Advancement of Science in New Haven, Mr. W. R. Johnson spoke on the scientific interest of the proposed Industrial Exhibition at London, in 1851. He said "it was no doubt known to them all that the British government have formed a committee for the purpose of carrying out the object of encouraging industry in all countries, at the head of which is the Royal Consort, Prince Albert. The British Minister brought the subject, before the government at Washington, and communications with the Governors of all the States were had relative to it. Local committees are formed in the different States to promote the contributions of this country to the Industrial Exhibition, and the attention of this association is earnestly called to it. One of the subdivisions is for raw material and produce. The vegetable and animal kingdom is worthy of being exhibited. Machinery is another class; and it seemed to him of the highest importance that the attention of this country should be called to the fact that 80,000 feet of space had been allotted to America for the exhibition. It is important that nothing should be sent abroad but what would do credit to the United States, and confer a benefit on the individuals forwarding their produce or manufacture."

The arrangements for the reception of foreign contributions, we believe, are very liberal. Every facility is afforded for their convenience and safe keeping. More space in the bazar has been allotted to the United States than to any other nation excepting France; but though we have 80,000 square feet allotted to us, we shall probably have to ask for more room. The American agent, Mr. Thompson, writes that the State of New York alone would, if allowed, fill the entire space assigned to the country. The prizes to successful competitors will amount to at least \$100,000, and will be awarded without distinction of country, by as perfectly impartial a jury as can be obtained.

To Our Cotemporaries.

We sincerely thank our 400 cotemporaries who have published the Prospectus of Vol. 6, Sci. Am. We have always received the most courteous and best wishes of our brethren of the Press; to you we are greatly indebted for our extensive circulation. As you have helped to lengthen our shadow, may yours never grow less. If we can do anything in this city for a cotemporary editor, or publisher, we shall always feel happy to do it.