

THE ADVOCATE OF INDUSTRY AND ENTERPRISE, AND JOURNAL OF MECHANICAL AND OTHER IMPROVEMENTS.

VOLUME I.

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NUMBER I.

THE SCIENTIFIC AMERICAN, PUBLISHED EVERY THURSDAY MORNING, AT NO. 11 SPRUCE STREET, NEW YORK, NO. 16 STATE STREET, BOSTON, AND NO. 21 ARCADE, PHILADELPHIA, (THE PRINCIPAL OFFICE BEING IN NEW YORK.)

By RUFUS PORTER.

Each number will be furnished with from two to five original Engravings, many of them elegant, and illustrative of New Inventions, Scientific Principles, and Curious Works; and will contain, in addition to the most interesting news of passing events, general notices of the progress of Mechanical and other Scientific Improvements; American and Foreign Inventions and Discoveries; Catalogues of American Patents; Scientific Essays, illustrative of the principles of the sciences of Mechanics, Chemistry and Architecture; useful information and instruction in various Arts and Trades; Curious Philosophical Experiments; Miscellaneous Intelligence, Music and Poetry.

TERMS.—The "Scientific American" will be furnished to subscribers at \$2.00 per annum, one dollar in advance, and the balance in six months.

Five copies will be sent to one address six months, for four dollars in advance. Any person procuring two or more subscribers, will be entitled to a commission of 25 cents each.

Wife, Children and Friends.

If the stop of our bliss be in stranger hands vested, The family secured, oft in bankruptcy ends; The heart bleeds bills which are never protested, When drawn on the bills of—wife, children and friends.

Though vapour still glows in life's dying embers, The death-wounded tar, who his colours defends, Drops a tear of regret as he, dying, remembers How best was his home with—wife, children and friends.

The soldier, whose deeds live immortal in story, Whom duty to far distant latitude sends, With transport would barter whole ages of glory For one happy day with—wife, children, and friends.

The day-spring of youth, still unclouded by sorrow, Alone on itself for enjoyment depends; But drear is the twilight of age, if it borrow No warmth from the smile of—wife, children, and friends.

Let the breath of renown ever freshen and nourish The laurel which o'er the dead favourite bends, O'er me wave the willow, and long may it flourish, Bedewed with the tears of—wife, children, and friends!

Attraction.

Attraction is a curious power, That none can understand; Its influence is every where— In water, air and land; It keeps the earth compact and tight, As though strong bolts were through it; And, what is more mysterious yet, It binds us mortals to it.

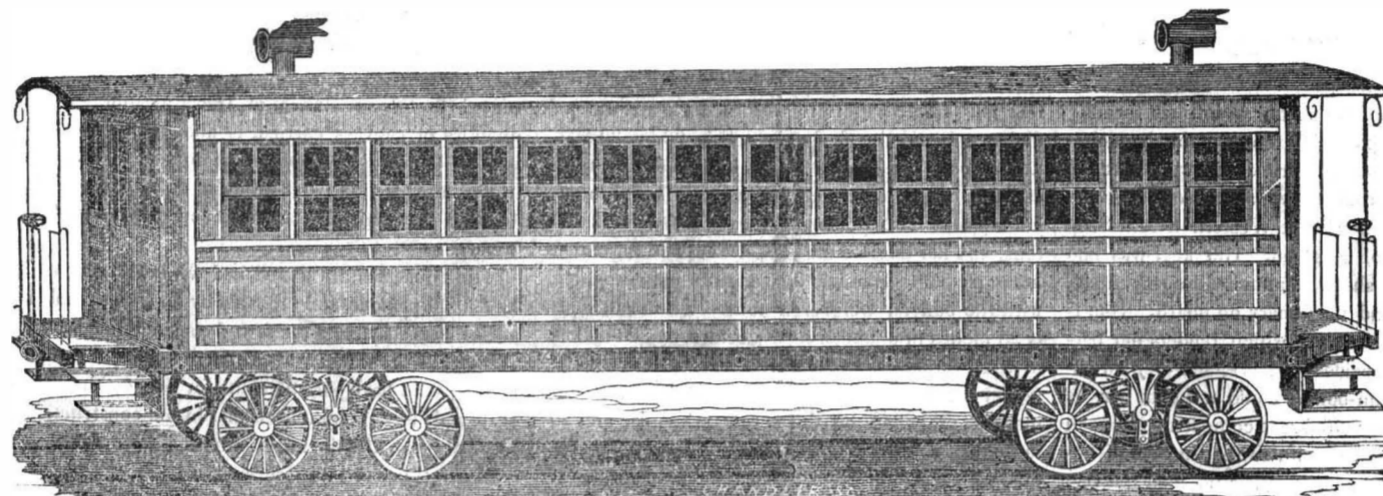
You throw a stone up in the air, And down it comes—ker-whack! The centrifugal casts it up— The centripetal—back. My eyes! I can't discover how One object 'tracts another; Unless they love each other, like A sister and a brother.

I know the compass always points Directly at the pole; Some say the north star causes this, And some say—Symms's Hole! Perhaps it does—perhaps it don't; Perhaps some other cause; Keep on prehapsing—who can solve Attraction's hidden laws?

A fly lights on a 'lasses cup— Attraction bids him woo it; And, when he's in, attraction keeps The chap from padding through it. Attraction lures the sot to drink, To all his troubles down; But when his legs give way, he falls, And 'traction keeps him down.

Attraction is a curious power, That none can understand; Its influence is every where— In water, air and land. It operates on every thing— The sea, the tides, the weather; And sometimes draws the sexes up, And binds them fast together.

IMPROVED RAIL-ROAD CARS.



There is, perhaps, no mechanical subject, in which improvement has advanced so rapidly, within the last ten years, as that of railroad passenger cars. Let any person contrast the awkward and uncouth cars of '35 with the superbly splendid long cars now running on several of the eastern roads, and he will find it difficult to convey to a third party, a correct idea of the vast extent of improvement.

LOWELL AS IT WAS AND AS IT IS; By Rev. HENRY A. MILES, is a neat 18mo of 234 pages just issued by Powers & Bagley, Lowell. It is full of facts of general interest. We learn from it that the Merrimac Company (whose dividends are so often quoted) employs 1250 women, whose average earnings considerably exceed \$2 each per week above the cost of their board.

EXTRAORDINARY PHENOMENON.—The inhabitants of the village of Moulton were greatly astonished on Saturday last, at observing a considerable quantity of hay from a field where it was in cocks for stacking) rise rapidly into the air.

MAKING ARTICLES IN HORN.—The handles for knives, razors, and other articles moulded in horn, are thus made: The horn is first cut into appropriate pieces with the saw, and when heated, these are prepared with a knife or spoke-shave, to the general form and size required; after which the pieces are pressed into moulds.

A SMOKE FILTER FOR LOCOMOTIVES.—An invention, which promises to be one of great utility, has been recently made by Mr. J. P. Dempfl, a French gentleman, of much scientific talent.

BURNING WELL.—A correspondent of the Cleveland Plain Dealer, gives an account of a burning well that may be seen at Southington Centre, in Trumbull county, Ohio. The well is 91 feet deep, and all but 24 feet through sand-stone, quick-sand and hard rock, which the augur used for boring could not penetrate.

NEW ARTICLE OF EXPORT.—We are told that a Yankee broom maker, in Ohio has, leased some twelve hundred acres of bottom land, on the Scioto river, near Columbus, and planted the entire plot in broom corn, with a view to export the crop to England, where he intends to proceed himself, and engage extensively in the manufacturing of brooms, taking with him the wood for the handles, and the machinery used for the purpose.

IMPROVEMENT IN OREGON.—Already has a canal been commenced around the dangerous falls in the Columbia river, at Willamette, by Dr. McLaughlin, an American citizen. Its length will be about half a mile, part of the way through a solid bed of primitive rock, and the fall in the entire distance will be about thirty-five feet.

LIQUOR BURNT.—Among the property destroyed by the late fire, in this city, was a large quantity of intoxicating liquors, for which nobody ought to mourn. It is announced that 912 pipes of brandy, 200 pipes of gin, 100 puncheons of rum, 2000 pipes; half and quarter pipes of Madeira wine, 3000 casks of port wine, 1000 Malaga, 1500 Marseilles, 1000 claret, and 5000 baskets of Champagne were consumed.

CAUSE OF SOUND IN THUNDER.—Thunder is one of the consequences resulting from lightning, and lightning appears to be occasioned by the combustion of some of the inflammable particles of air; or according to more recent opinions, of a condensation of aerial matter conducting to electricity, by which in either case, a vacuum is created.

GREAT IMPROVEMENT IN LITHOGRAPHIC PRINTING.—A very important improvement has been made in the lithographic printing machine by a young French engineer named Nicolle, by which the same precision and regularity of pressure is obtained as by the common hand-press. By the common lithographic process, not more than from 200 to 250 good impressions of designs, or about 1,000 copies of lithographic writing, can be obtained in twelve hours; by this new machine, which is also worked by hand, as many as 2,000 of the former, and 20,000 of the latter, can be obtained within the same period of time.

A SENSIBLE HORSE.—One of the truck horses of Mr. Hinds was unloaded for a minute or two, from the trucks, a few days since, in this city, when, on the driver looking around for him he beheld he was missing. It was an hour or two, before the driver could discover his whereabouts. It was very mysterious, he being a steady beast, and not subject to flights of fancy.

THE PROPERTIES OF ZINC.—Professor Faraday, as we are informed in the London Athenaeum, has made this metal the subject of many interesting experiments. He has discovered that it assumes new properties on being melted and poured into water, the metal becoming very malleable and soft, losing none of its tenacity, but still capable of being spun into the finest wire, pressed into any required form, or rolled into any thinness desired.

A SPECIMEN OF VEGETABLE SILK, raised from seeds received from Italy, which came originally from Syria, has been presented to the National Institute. Some of the seeds have been forwarded to Florida to the Hon. D. Levy, for the purpose of being cultivated.

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CATALOGUE OF AMERICAN PATENTS

ISSUED IN 1844. CLASS I.—Agriculture, including Instruments and Operations.

- Bee Hives—Improvement in Bee Hives by Aaron E. James, Point Pleasant, Va., Jan. 6th. Do. Samuel & J. D. Cope, Damascusville, Ohio, Feb. 8th. Do. George B. West, Fairfield, Ohio, April 20th. Do. James A. Cutting, Haverhill, N. H. June 24th. Do. Jacob D. Fulkerson, Unity, Ohio, July 1st. Do. Oliver Reynolds, Webster, N. Y., Dec. 4th. Do. Bee Palaces, Lemon Hamlin, Kirkersville, Ohio, July 13th. Improvement in Churns—George W. Cook, St. Louis, Mo., Feb. 28th. Do. Harness Bently, Ballston, N. Y., April 20th. Do. Jason B. Schermerhorn, New York, June 5th. Do. Thomas Ling, Portland, Me., Aug. 21st. Corn and Cane Cutters—Jacob Peck, Oakland, Penn., Aug. 28th. Corn Fodder, Cutting and Crashing—Rudolph Miller, York, Penn., Oct. 3d. Corn-Sheller—William McAll, Talladega, Indiana, April 13th. Cultivator—Robert Nelson, West Point, Ia., Jan. 15th. Cultivator—William Dyzert, Gettysburg, Penn., Aug. 16th. Cultivator Teeth—James Birdsall, Hamorton, Penn., Nov. 9th. Fruit-gatherer—Alexander McWilliams, Washington, D. C., March 13th. Harrow, sward-cutting—Dennis Rice, Rowe, Mass., May 17th. Hulling Clover Machines—A. B. Crawford, Wooster, Ohio, Dec. 31st. Hulling and Pearling Rice—Jacob Groat, Troy, N. Y., July 11th. Mowing, Grain Cradles—William A. Wood and John C. Loveland, Hoosick Falls, N. Y., Nov. 13th. Mowing, Harvesting Machines—George Esterly, Heart Prairie, W. T., Oct. 23d. Mowing Hemp Cradles—Griffin Reynolds, jun., Washington, Ky., May 30th. Mowing, Reaping Machines—William F. Ketchum, Buffalo, N. Y., Nov. 18th. Improvement in Ploughs—John Thompson, Ripley, Ohio, April 17th. Do. Aaron Smith, Bloomfield, Mich., May 6th. Do. Jonathan Meers, Hazelton, Penn., July 14th. Do. Anthony Taylor, New Garden, Ohio, Dec. 19th. Plough, adjusting—William R. Allan, Brownston, Ky., Jan. 31st. Plough, combined—Harvey Crown, Payson, Ill., March 9th. Plough, double—Aaron Smith, Bloomfield, Mich., May 10th. Plough, excavating ditches—James Herbert, Lagrange, Ia., April 13th. Plough, gathering weeds under the furrow slice—Dudley Hills, East Hartford, Ct. Oct. 7th. Plough, wheel—Israel Long, Bucyrus, Ohio, March 9th. Potato-Diggers—Archibald C. Ketchum, Schenectady, N. Y., Feb. 20th. Rake, grain—Benoni F. Partridge, Onondaga, N. Y., March 13th. Ratton and Cane Cutters—Robert Lauve, Plaquemines, La., Sept. 17th. Seeding, corn planters—Thomas H. Hoskings, Crawfordsville, Ia., Jan. 20th. Seeding, planting machines—Dierck Brewer, Petersburg, Tenn., April 4th. Seeding, seed planters—Loea Pratt, Amherst, N. H., April 25th, and Richard J. Gatling, Murfreesborough, N. C., May 10th. Seeding, seed planters—U. Kilburn, Lawrenceville, Penn., and F. Haines, Marietta, Penn., Dec. 31st. Seeding, sowing machines—Ezra Fisk, Fayette, Me., Nov. 18th. Smt Machine—Meredith Mallory, Mount Morris, N. Y., Jan. 20th. Smt Machine—Jacob W. Brown, Mount Airy, N. C. Feb. 28th. Do. James M. Clarke, Strasburg, Penn., March 20th. Do. Samuel Scammon and R. Nason, Waterville, Me., April 10th. Do. Elisha S. Snyder, Charleston, Va., April 30th. Do. Henry B. James, Mount Holly, N. J., May 17th. Do. Abraham Straub, Milton, Penn., May 17th. Do. Elisha W. Young, Parkman, Ohio, June 5th. Do. Thomas H. Nelson, Harrisburg, Penn., June 5th. Do. James W. Webster, Luray, Va., June 5th. Do. John Pugin, Michigan City, Ia., Aug. 19th. Do. Jacob Groat, Troy, N. Y., Nov. 9th. Straw-Cutter—William Hovey, Worcester, Mass. Feb. 12th. Do. Hiram M. Smith, Richmond, Va., Feb. 20th. Do. Eliakim Taylor, Rochester, N. Y., Oct. 12th. Do. Ezra Taylor, Monroe, N. Y., Nov. 6th. Threshing Machine—Luther & Ezra Whitman Winthrop, Me., March 20th. Do. Charles W. Catheart, New Durham, Ind. April 25th, and Frederick A. Stuart, Catharine, N. Y., June 20th. Threshing and Winnowing Machine, and Grain Separators—Jacob V. A. Wemple, Mohawk, and George Westinghouse, Schoharie, N. Y. July 13th. Winnowing Fanning Mill, for cleaning grain—Calvin O. Guernsey, Russia, N. Y., Oct. 12th. Winnowing, separating grain from chaff—Ezra Packard and Christian B. Packard, Catharine, N. Y., Nov. 8th.

