Scientific American.

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

NEVINS'S

Vol. 3.

New York, May 6, 1848.

THE **SCIENTIFIC AMERICAN:** PUBLISHED WEEKLY

At 128 Fulton Street, New York (Sun Building,) and 13 Court Street, Boston, Mass. By Munn & Company. The Principal Office being at New York. TERMS-\$2 a year-\$1 in a vance, and

the remainder in 6 months. See advertisement on last page.

Poetry.

WORDS FOR TO DAY. When first we wake to that great thing, The consciousness of power, It is not 'mid the gales of Spring, Nor in the Summer bower; Stern the voice the truth to tell-Rugged the hand to guide-Bitter the struggles of the soul-By wo is manhood tried.

And well-oh ! well we have been tried, And well have we endured-The weary time at last is o'er,

The triumph is insured. Thou who hast seen thy stricken and, Nor felt thy heart to break ; Remember ! oh, remember, thou

Art living for her sake.

Tho' all seem crush'd, and black, and dread, The germs are sound within, Of Love, and Hope, and Happiness

And they their bloom shalt win-If 'twere as black as thunder-cloud, As cold as Winter snow,

The smile of God is still above-The breath of God below.

It is the noblest effort here

- To triumph o'er despair-What angel power thou mayst acquire,
- Who shall the struggle dare-Believe that all the germs of night

Are hid in suffering-It is the iron casket of

The talismanic ring.

Thou who nor loved, nor suffered, know Thou dost but live in part-

A strange new land thou'lt enter when Those feelings rule thy heart-Thy soul shall ripen in their breath,

And clothed in glory be, And feel the exerting consciousness Of immortality.

FEARLESS AND FAITHFUL. Labor fearless, labor faithful, Labor while the day shall last,

For the shadows of the evening Soon thy sky will overcast. Ere shall end thy day of labor,

Ere shall rest thy manhood's sun, Strive with every power within thee,

That the appointed task be done. Life is not the traceless shadow.

Nor the wave upon the beach, Though our days are brief, yet lasting Is the stamp we give to each.

Life is real, life is earnest,

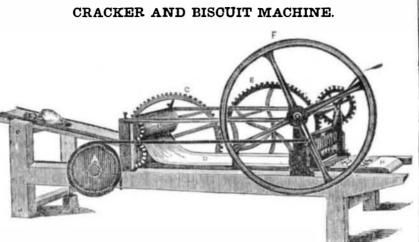
Full of labor, full of thought: Every hour, and every moment Is with living vigor fraught.

Fearless wage life's earnest conflict, Faithful be to thy high trust,

If thoul't have a memory cherished, And a path bright as the just.

Labor fearless, labor faithful, Labor until set of sun,

And the welcome shall await thee. Promised plaudit of " well done."



This is a machine which has long been in contest for the infringement of the invention and a final settlement has been kept back on account of a defective specification. The inventor is Mr. W. R. Nevins, ot this city, and the contested point has been set up in defence that this machine was the same as one already patented by a Mr. Poole. The old patent specification was defective, and obtained previous to 1836, and has been surrendered and a reissue obtained under the management of C. M. Keller, Esq. now of this city. This machine carries the dough for ward from feed rollers, on an endless web to cutters, and the web after this carries forward the cut biscuit or crackers past the cutters to be lifted theretrom by a person attending the machine. This is the distinctive feature of the invention wherein it differs from Poole's and all others, for Poole's cuts the dough on a stationary table and pushes off, not carries the crackers. We published in No 8 of this vol. of the Scientific American, a cut of Mr. Nevins's improvements on this machine, but a contested point in a patent is always of interest to inventors and patentees.

DESCRIPTION .- The dough is placed upon the feed table to the left, from which it is taken by feed rollers B, which roll it out the proper breadth as represented in the cut by D, and on it carried forward to the cutter box X, passing under a cutter plate where the cutters act by reciprocating motion communicated by the two cranks which attach the cutters

American Agricultural Implements. A number of American agricultural tools were taken over to England by a Mr. Slocum for trial with English implements, and the trial by a committee eventuated as follows The best Northampton, and Howard's Champion plough required to turn a furrow on a clay soil 5 inches deep, and 11 inches wide, a draught of 420; the American plough 5 inches deep and 15 wide, 364. The next trial was at 8 inches deep and 11 wide, the En. glish plough required 644 pounds, the American 588 pounds The triers remarked : "In justice to the American plough, we must say, they cut and turned their furrows quite as well as the others, breaking the land to pieces, indeed they are the most simple, light, strong, efficient, ploughs that it is possible to conceive."

The fanning mills were equally as superior They say, with the exception of cleaning out white caps, they " are quite equal to our best machines, and one man is able to fill more chaff into it than two can put into any of our machines; but its greatest recommendation is its cheapness, simplicity, efficiency, and expedition." "Mr. Slocum's hand machines are the strongest, lightest and most per-

to the driving shaft, known by the handle seen in the cut on the other side, connected to the axle of the small cog wheel. The crackers being thus cut, they are carried forward past the cutter box, and the web passes over H, a roller, in returning. As the biscuit are cut by a reciprocating motion, the feed motion, therefore, must be alternate. This is done by a weight passing over a grooved pulley A, connected by a chain or cord with a crank pin on the fly wheel F, so that the feed motion and the cutting motion are both in unison by the crank gearing. The crank pin is fixed in a slot so that large and small biscuits may be cut by shifting it therein, and the feed and cutting motion thereby always working in unison. E, is an intermediate wheel which meshes into C, to operate the feed rollers, all receiving their motion from the small cog wheel on the axle of the crank handle. The point of improvement in Mr. Nevins's new machine is the feed motion being regulated by a rocking shaft placed on the same side of the machine that the handle is fixed, and the fly wheel thus disencumbered of the dragging weight of the feed motion at the point represented in the above cut : consequently the new machine is operated with more ease than the old one. Mr. Nevins has lately invented a new mixing and kneading machine which is destined to work a complete revolution in that most severe branch of the biscuit baking business, a cut of which will soon appear in the Scientific American.

fect articles that ever came under our notice.' This result is rather credible to the ingenuity and good judge ment of the "Universal Yankee Nation."

Water Cure.

have been effected by the simple use of wa- dred guns. Thus has, at length, opened the ter, which has now become a most valuable Illinois and Michigan Canal. The long and auxillary to the materia medica. A patient eventful period that has marked its progress in one of the cold water asylums of Mass, has at last been passed-the doubts and dissays, after five months treatment, that he trusts and uncertainties which long hung over weighed 127 pounds when he entered the it have vanished. asylum, and has been relieved of thirty-three pounds of bad flesh, and now teels that he has been made over The water cure is arres- 8 wheel engine, with 8 feet driving wheels, ting the attention of our most scientific Doctors.

Singular Error.

By a recent survey of Chester Co., Pa., made by accurate surveyors for the purpose of having a map drawn, it appears that Mr. Wm. Smith, who has for the last two years been a member of the Assembly of Delaware actually resides within the boundary of Pennsylvania, his dwelling being about four hun- Sir John Franklin, set out on this his last dred yards from the Delaware line.

No. 33.

RAIL ROAD NEWS.

Broad and Narrow Guages. Out of 3400 miles of British Railroads now opened only 300 are upon the broad guage.-The broad guage is 7 feet wide, the narrow is 4 feet 81 inches. Some trips have been made on the narrow guages lately which in point of speed have not yet been surpassed on the broad guage. But it any person wishes to be impressed with a feeling of a we for the mighty inventions of man, one who has stood upon the Pyramids of Egypt has said that he felt far deeper sensations when he beheld a train pass him on the Great West Railroad than when gazing from the top of the Egyptian monument.

Whitney's Railroad.

The Committee of the U.S. House of Representatives appointed to examine into the merits of Whitney's project for a Railroad to the Pacific, have reported favorably, only one of the Committee, Mr. Maclay, reporting against it.

Nashville Railroad.

Mr. Garnet, the chlef engineer of this road has proceeded to examine the route for the first forty miles of the Nashville, Tenn. and Chatanooga Railroad.

New Raliroad to Philadelphia.

A number of merchants and others in Philadelphia contemplate the construction of a new and independent railroad between that city and this.

The American Railroad Journal states that there are 77 Locomotive Engines on the Philadelphia and Reading Railroad.

We thought that the revolution in France would have unsettled the Railroads in that country, but it seems not. Our valuable exchange the Journal des Chemins de Fer et des Mines, has even come more regular since than before the revolution, and what is not a little pleasing to a republican the red mark of royalty has disappeared from the wrapper.

New Railroad Machine Shop.

The famous manufacturer of Locomotives, Norris of Philadelphia, has commenced a new machine shop at Schenectady, N. Y.

Connection between Lake Michigan and the Mississippi.

This interesting event has at length been accomplished by the opening of the Illinoisand. Michigan Canal, and has been duly celebrated at Chicago. This is an event, in which Chicago has a deep and direct interest, dre out the whole population of the town, and first boat was received with deafening cheers As if to make the baptism complete, a circuit of a mile or two was taken out in the lake. Upon passing out of the harbor, the It is surprising to observe what great cures boats were welcomed with a salute of a hun-

> A locomotive named the " Lightning," an made a trip recently in England of 53 miles at the rate of 75 miles an hour. The engine was perfectly steady at the highest speed.

> The expedition in search of Sir John Franklin has reached Buffalo. New York, where it is to meet some persons from Montreal, who, together will set out for Hudson's Bay via Detroit, and the Salt St. Marie, in the prosecution of the voyage of exploration. voyage of discovery in the year 1845.