Scientific American.

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

Dol. 4.

New York, March 17, 1849.

No. 26.

SCIENTIFIC AMERICAN: CIRCULATION 11,500.

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 advance, and the remainder in 6 months. 13-See advertisement on last page.

Poetry.

THE LAST LEAF.

I saw him once before, As he passed by the door, And again The pavement stones resound As he totters o'er the ground With his cane.

They say that in his prime, Ere the pruning knife of Time Cut him down, Not a better man was found By the crier on his round Through the town.

But now he walks the streets, And he looks at all he meets So forlorn; And he shakes his feeble head, That it seems as if he said, "They are gone."

The mossy marbles rest O'er the lips that he had press'd In their bloom; And the names he loved to hear Have been carved for many a year On the tomb.

My grand-mamma had said-Poor old lady! she is dead Long ago-That he had a Roman nose, And his cheek was like a rose In the snow.

And now his nose is thin, And it rests upon his chin Like a staff; And a crook is in his back, And a melancholy crack In his laugh.

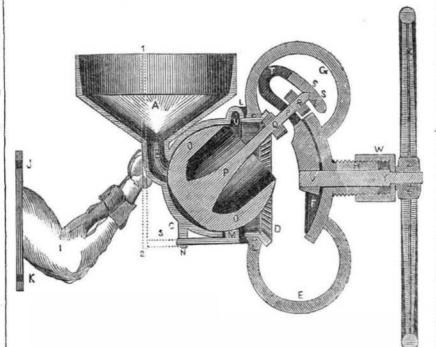
I know it is a sin For me to sit and grin At him here; But the old three-corner'd hat, And the breeches-and all that, Are so queer !

And if I should live to be The last leaf upon the tree In the spring-Let them smile as I do now At the old forsaken bough Where I cling.

There is Good in the World. There is good in the world, Though sin may defile it There is joy 'mid our tears, Though man may revile it. Though crime's mighty banner Is in darkness unfurled, Yet remember this truth-There is good in the world! In the worst of our kind There's a remnant of good, If we knew but the cord, Or the sensitive mood, By which their kind feelings Might again be unfurled. Then their actions would prove

There was good in the world!

EMERSON GODDARD'S IMPROVED GRINDING MILL.



This is an engraving of one of a numerous class of grinding mills contrived by the same inventor, for grinding all kinds of substances, from the finest pigments, to the coarsest of any other materials. This Mill is ornamental in character as well as useful in construction and operation. The Mill is attached to the side of a room and supported by some tasteful standards such as the arm I, secured to the wall by screws or bolts J K, or the dotted lines 1, 2, 3, represent a substitute for the arm, &c. A is a tunnel for the reception of the paint to be ground. B, is the conducting pipe to the globular casing of the Mill C, which is the bed of the grinding apparatus. N is a short arm attached to the case, connected to the scraper M, which clears the Mill of paint as fast as it is ground. It extends through a hole in the case C, and the tub to receive the ground paint is placed below it. D, is the stationary geer wheel forming part of the case. E G, are two segmental arms forming part of another stationary gear wheel F. These arms are attached to the case at L L, by peculiarly formed dovetails and keys. In the centre of F, is a long journal box H, in which the main shaft V, turns by the fly wheel Z Z and the handle X. Attached to the shaft V, is a curved crank T, by which the revolving grinder O O, is driven by the shaft P P, which rests in one of the pivot bearings S S, and against part of the crank represented by the dark shading at T. On P. P are two pinions Q and R, of ten teeth each, and Q meshes into the stationary gearing D, when P rests in the upper pivot box S, but

when P rests in the lower S, the pinion R, meshes into the wheel F, and Q is ungeared.

Now it is evident that by the revolution of the shaft V and crank T, by the fly Z Z, and X, that if either of the pinions Q or R, are in connection with their respective gearings D or F, the globular grinder O O, will spin on its axis and this motion combined with the crank constitute its grinding principle. By the gearing D Q, the grinder is relled over backward or in a direction contrary to that of the crank T and is intended to grind the finer kinds of paint. By the gearing F R, the globular cylinder O O, is rolled over forward or in the same direction as the crank T, and is intended to grind the coarser kinds of paints as there will be less grinding surface to which the paint will be exposed by this motion than by the other.

The pressure of the grinding parts and the changing of the axle P P from one pivot-box to the other is effected by turning the screw cap W, which presses against a shoulder Y, on the shaft V, which screw-cap screws on the journal box H. U is a semi-circular groove extending around the inside of the case C D, which prevents the escape of the paint except by the scraper M.

Persons desiring more information about this Mill, will receive the same by communicating post paid with the inventor at Petersham, Mass. He is desirous of selling rights on favourable terms with a full guarantee of protection, &c.

New Safety Mining Lantern.

Mr. Crane, of Birmingham, England, (says the Atheneum,) has invented a new Mining Lantern, to burn composition candles that require no snuffing. The principle, however, can be applied to oil lamps. The front of the lantern is made of strong glass; the back of polished tin; the two sides of wire gauze, soldered to the framing, having 900 apertures in a square inch of surface. Over the wire gauze sides are fixed covers of tin, hinged to the top of the lantern, which are kept fast by a small hasp at the bottom. The lower edge of each tin coverside is bent inward to rest against the framing-so that the tin plate may be kept at a distance of 3-4 of an inch from the wire gauze. Sufficient space is thus provided to allow of the passage of air for the supply of the light. No direct current of |

held between four short wires, soldered in the dish of a moveable socket. The lid is pierced with two rows of holes, through which the heated air and smoke escape; and to the top is fixed a large ring, by which the lantern is carried and hung up. The ring is kept cool by a piece of tin, bent into the form of an inverted cone, soldered inside the lid, which causes the hot ascending air to flow capes through the openings. To prevent any inflammable gas entering through the lid, a circular disk of wire-gauze is soldered inside the rim of the lid-so that no gas can enter will never become red-hot, so that no explosion can possibly occur.

Camphor dissolved in ardent spirits is said wind can have any effect upon the light, be- by the Maine Farmer to be an effectual cure cause there is no admission into the lantern for vermin in cattle. The best cure is to feed says that a large seam of coal has been disbut obliquely at each corner. The candle is 'well, house well, and use the card regular. | covered in that county.

RAILROAD NEWS.

Hudson River Railroad.

In a circular recently issued by the directors, they say that they will be able to open the road to Peekskill in the month of July next, to Poughkeepsie in the Fall, and to Albany in season for next winter's business. If they do this, they will have accomplished a great project under many disadvantages.

Western Atlantic Railroad, Georgia. This road is rapidly progressing and it is intended to have the work completed by October next.

Railroad Invention.

The Washington Union speaks in glowing terms about two new Railroad inventions-" one a new brake, and the other a new plan to enable the locomotive to surmount steep inclines without centre or rack rails." The Union does not describe the inventions, but says that "the models have been examined by them." We have some idea of Mr. French's plan to surmount steep gradients, as he communicated with us on the subject, but it is of a nature which full experiments alone can prove either useful or useless.

Railroad Damages.

At the Superior Court in Fairfield Co., Ct. Mr. Beers recovered \$120 from the Housatonic R. R. Co., for two animals killed at a crossing. The Judge charged the Jury that at crossings, railroad companies have nopeculiar or superior rights, and that in such places their agents are bound to use more than ordinary care least they trespass on the rights

Rules for Travelling on Railroads.

A case was recently tried in the Saratoga Circuit Court held at Ballston Spa, in which the plaintiff, a passenger in the Troy and Saratoga cars, sued the defendant, (theconductor,) in an action of assault and battery for obliging him to leave a seat previously taken by another. A party of three had entered the car and taken seats facing each other, which in some cars may be done, and while one of the gentlemen was absent the plaintiff seated himself in his place, opposite to and facing one of the ladies. The other coming in, requested the stranger to leave the seat, and he declining, the matter was referred to the conductor, who required him to take another seat, which was vacant. Some slight violence was proved, but the verdict, under the charge of the Court-Judge Willard presiding-was given for the defen-

A Gigantic Corporation.

A pamphlet has lately been published, proposing the consolidation of the Railroads between Albany and Buffalo. There are now seven distinct Companies, whose bickerings and jealousies occasion frequent irregularities in the junction of trains. The project is, to create a new corporation, with \$20,000,000 capital, which shall merge in itself all the existing companies.

Ratiroad Quarrei.

An affray of a serious nature occurred rely at Rochester, N. H., between the friends of the Great Falls and Conway Railroads, owing to some dispute concerning the location of the toward the side, where it immediately es- two roads, which cross each other in the village of Rochester. The friends of the Cocheco corporation commenced tearing up the rails of the other road, the consequence of which was a general fight between the two parties, but through the wire-gauze; this wire-gauze during which one man had an arm broken, and several others were badly bruised. Several of those engaged in the affair have been ar-

The Rockland County Messenger, N. Y.