

Scientific American.

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

Vol. 3.

New York, April 15, 1848.

No. 30.

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 advance, and
the remainder in 6 months.

See advertisement on last page.

Poetry.

THOUGHTS.

They come when the sunset,
Is bright on the mountain;
They come when the moonlight
Is clear on the fountain,
At morn and at even,
By minutes and hours,
They come from the forest,
From birds and from flowers.

They come when some token,
Of days past will rise,
As a link to the present,
And then they bring sighs;
They come when some vision
Of hope and of fears
Rushes on to the future,
And then they bring tears.

They come when the sea-mist,
O'er ocean is rife,
And tell of the shadows
That harg o'er our life;
They come when the tempest
Its thunder and gloom,
Spreads round, and they speak
Of the earth and the tomb.

They come when the ripple,
Is low on the lake:
And the plover is nestling
By fountain and brake,—
And the twilight looks out,
With gems on its breast,
And they whisper that all,
Save themselves are at rest.

They come when the light wind
Is fanning the leaves,
They come when the flower cup
The dew drop receives—
By night's noontide silence,
By day's noontide hum,
At all times, oh deeply
And darkly they come.

THE BLIND GIRL'S SONG.

BY "HENRY."

Oh! tell me not of happy hours,
Of sunlit days or birds or flowers,
Or aught that's bright;
For to my love and darksome soul,
All—*all* is night!

Ye say the sun still brightly shines,
And gaily wave the trellis vines,
In his bright glance,
And still upon the sparkling sea,
The waters dance.

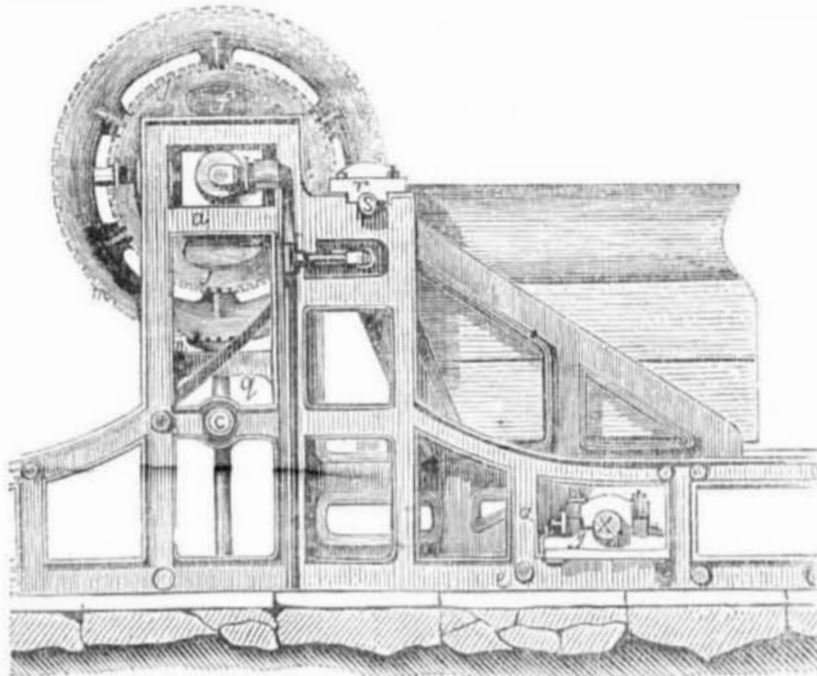
And yet the feathered warblers sing,
As poised upon their ambient wing
They cleave the sky,—
And swift they skim the mirror'd lake
Or soar on high.

I know it for I *feel* it all;
But o'er my sight is cast a pall,
So dark and dread,
That oft my rebel heart would wish
That I were dead!

The average number of deaths in the City
of New York, is 50 per day.

MACHINE FOR GLASS MOULDING.

Figure 1.



This is an invention of Mr. Henry Bessemer, of Baxter House, in the county of Middlesex, England, and relates to apparatus for founding and casting plate glass, a subject which must commend itself to many in our country, as this art is but young even in England and scarcely known here, but which must yet be extensively manufactured, as the means are not wanting, and the material is abundant in many of our States. At present our valuable plates are imported and Germans are the artisans that are mostly employed in England. There are plenty of them in this country and doubtless many good artisans capable of managing this business, without sending thousands of miles to purchase it at a vast expense.

In this improvement peculiar melting pots are used. This carriage in the figure consists of a strong ribbed iron frame mounted on four small flanged wheels which run on two rails. The upper side has a recess into which blocks of soap stone or fire brick are fitted into an iron frame. In the upper part of these blocks recesses are made for the melting pots to sit snugly and a quantity of broken bottle glass is laid on the top of the blocks and they are heated till the glass melts and cements the joints of the blocks together, and while this glass is yet in a fluid state, the carriage is removed a moment from the furnace to receive the melting pot which is brought in a white heat from the pot arch, set in the midst of the fluid glass, and the carriage then returned to the furnace. On afterwards using the pot, as the bottom is very thick and the heat only

Remarkable Operation.

The Charleston Courier says "we have lately been permitted to see three casts of the nose and face of a young gentleman of this city who labored under a great natural deformity of the nose—what is vulgarly called the bridge being very much depressed whilst the point was turned up. To relieve this deformity, Dr. N. D'Alvigny, dentist, invented an instrument not thicker than a good sized needle flattened, and with cutting edges at the point which made an incision so small, that since the healing of the wound it can scarcely be perceived—and yet, with this needle, the cartilages which connect the *ossa nasi* and the *nasal processes* of the *superior maxillary* bones were divided, and an apparatus steadily supplied upon the bridge of the nose so as by constant pressure to keep the parts in

having access to it through the materials which it may contain, the bottle glass used to cement the pot to the bed or recess is found not to be too cold to be brittle, nor so hot as to allow the pot to slip from the carriage.

Figure 1, is a side elevation of the machine with the pot and carriage in their position after being removed from the furnace. (The other figures are placed on page 236, to which the reader is referred in connection with this, as the description necessarily occupies considerable space.)

Figure 2, is a longitudinal section shewing the pot in an elevated position and partly emptied. Figure 3, is a longitudinal section of one of the rollers and stuffing boxes shewing how the water is made to enter and leave while they are in motion. The same letters indicate like parts on all the figures. *a a*, is a side framing of cast iron secured by the cross pieces *c*, and also by the stretchers *e e*, between the side frames *a a*. The rollers *f* and *g*, are placed in suitable bearings fitted to the side frames, and are made to move to and from each other by means of screws, which force the brasses *H*, and roller *f*, near to the roller *g*. A piece of iron is placed between the brasses and the frame, and according as it is exchanged for one more or less thickness so will it cause the rollers to be nearer or further apart, and thus regulate the thickness of the glass. The roller *f*, is also provided with wheels *j j*, at each end, and the roller *g*, also with wheels at each end within the side framing. In addition—

[Continued on page 236.]

a correct position, until the parts become permanently united. The nose by this means has been restored to a natural and comely shape."

Salt a good Manure for Celery.

A root and stalk of celery weighing fourteen pounds without the leaves, and measuring fourteen inches in circumference, was exhibited at a recent meeting of the Cincinnati Horticultural Society. It was exhibited to show the value of salt as a manure for this plant, the gentleman who raised the article having made the experiment of treating a portion of his plants in the ordinary way, and manuring a part of them with salt. The former were of ordinary size and quality, the latter being both larger and of finer flavor, of which the specimen exhibited was an exemplification.

RAIL ROAD NEWS.

Tunnel through the Green Mountains.

There is at present a projected line of railroad from Boston via Greenfield, Mass., to Troy, N. Y., which if executed will be the greatest work ever accomplished. The road will have to pass through the Hoosick Mountain, about 2000 feet in height, and the length of the tunnel will be about four miles and a half. It is calculated that from the few hands that could be employed to tunnel, it would take five years to accomplish the subterranean excavation, and that from one to two millions of dollars would be the required cost. It is proposed to sink four or five shafts down through the mountain and cut out in different directions. The work can be done, but the profits will never be able to balance the expense in the opinion of many.

Railroads in the West.

The Cincinnati Chronicle states that the entire line of the Mad River Railroad is expected to be completed by the 1st of May next, and that then the summer trip between the cities of Cincinnati and New York may be made in *three days*, and all by steam. The programmes of the Railroad Companies, it is expected, will be as follows:—

Leave Cincinnati at 2 P. M.; and arrive at Springfield to sup, at 7 P. M.

Leave Springfield at 9 P. M.; arrive at Sandusky, to breakfast, at 6 A. M.

Leave Sandusky at 7 A. M.; arrive at Buffalo next day, to breakfast, at 5 A. M.

Leave Buffalo at 6 A. M.; arrive at Albany, to breakfast, at 4 A. M.

Leave Albany at 6 A. M.; and arrive at New York at 11 P. M.

Reduction of Railroad Fare.

The Bill reducing the Fare on Rail Roads between Albany and Buffalo, which passed the Assembly, was rejected in the Senate by a vote of 22 to 4.

Pennsylvania Railroad.

A Bill has passed the Pennsylvania Legislature, authorizing the corporation of Philadelphia and Alleghany Counties to subscribe stock for a connection with the Portage Railroad.

Magnetic Telegraph.

F. Rice, of Burlington, Vermont, has obtained the right to use Morse's Electro Magnetic Telegraph for a line of Telegraphic communication between the city of Boston and the village of Burlington, Vermont, passing through Lowell, Nashua, Manchester, Concord, Franklin, Lebanon, White River, Windsor, Woodstock, Randolph, Northfield, Montpelier, Waterbury, and such other villages as he may judge best, with the right to connect with the Troy and Canada Junction Telegraph Line at the said village of Burlington.

Articles of association are now published for a company to be called the Boston and Burlington Telegraph Company. The capital stock is to be equal to the cost of the line, estimating \$200 per mile for the first wire, and additional \$100 for the second wire, \$3,000 for the accommodation of business and expense of superintendance. The stock is divided into shares of \$50 each.

Telegraph Knocked Down.

There are towers built on the banks of the Hudson a short distance above this city, for suspending the wires of House's Telegraph, which crosses the river to the Jersey side.—Last week the fly of a sloop caught the curves of the wires and tore them away.

Our Telegraph operators will yet be forced into the more plausible plan of carrying the wires across rivers by tubes laid down in the water, and the plan of producing such tubes as described in the last number of the Scientific American, will no doubt answer a good purpose.