

# Scientific American.

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

VOLUME 5.]

NEW YORK MAY 4, 1850.

[NUMBER 33.]

THE  
Scientific American,  
CIRCULATION 14,000.

PUBLISHED WEEKLY.  
At 123 Fulton Street, New York, (Sun Building,) and  
13 Court Street, Boston, Mass.

BY MUNN & COMPANY.

The Principal Office being at New York.

Hotchkiss & Co., Boston.  
Geo. Dexter & Bro., New York City  
Stokes & Bro., Philadelphia.  
R. Morris & Co., Southern.

Responsible Agents may also be found in all the  
principal cities and towns in the United States.

TERMS—\$2 a year—\$1 in advance, and  
the remainder in 6 months.

## Rail Road News.

### Rules for Railway Travellers.

Never attempt to get out of a railway carriage while it is moving.

Never attempt to get in a railway carriage when it is in motion, no matter how slow the motion may seem to be.

Never sit in any unusual place or posture.

Never get out at the wrong side of a railway carriage.

Never pass from one side of the railway to the other, except when it is indispensibly necessary to do so, and then not without the utmost precaution.

Express trains are attended with more danger than ordinary trains. Those who desire security, should use them only when great speed is required.

Special trains, excursion trains, and all other exceptional trains or railways are to be avoided, being more unsafe than the ordinary and regular trains.

If the train in which you travel meet with an accident, by which it is stopped at a part of the line, or at a time where such stoppage is not regular, it is more advisable to quit the carriage than to stay in it.

Beware of yielding to the sudden impulse to spring from the carriage to recover your hat which has blown off, or a parcel dropped.

When you start on your journey, select, if you can, a carriage at or as near as possible to the centre of the train.

Do not attempt to hand any article into a train in motion.

When you can choose your time, travel by day rather than by night; and if not urgently pressed, do not travel in foggy weather.

[There is one reform that we should like to see adopted on all our railways, that is to have a board hung vertically in the inside at the end of each carriage, with the names of all the stopping places painted on it in rotation, and all these covered with a slide which would open, and show the name of each place before arriving at it. The conductor calls out the name of each stopping place as he arrives at it, but if the plan was adopted which we propose, he would just have to draw the slide after leaving one place to show the name of the next stopping place. This would allow passengers to prepare for their departure, would save calling out, and would afford a quiet security to passengers of not mistaking their stopping places.]

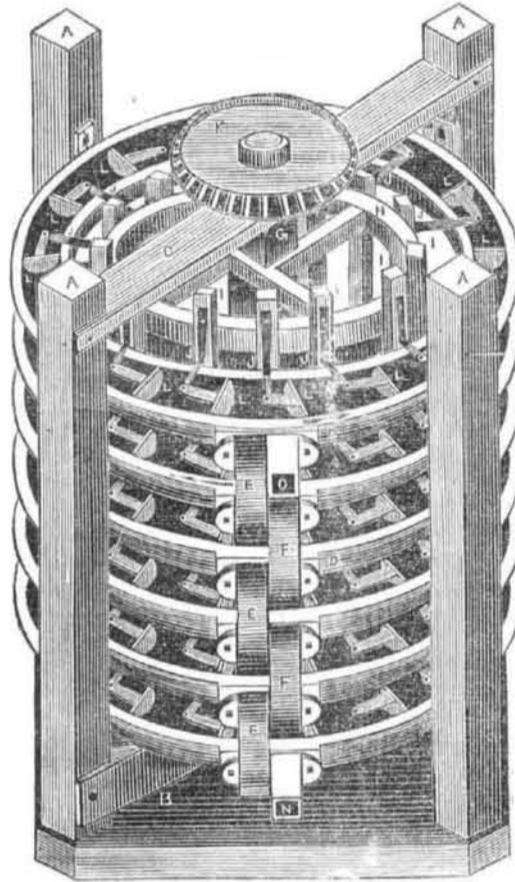
### Strike on a British Railway.

Owing to a dispute between the drivers and firemen and their employers, on the North British Railway, sixty-six engine drivers, with their stokers, recently left. The cause of the dispute was a reduction of wages. Their places had been partially supplied with mechanics from the machine shops, but they did not answer very well.

Let hope guide the faithful, for they will have their reward.

It is only the just who can live by faith.

## SNEAD'S IMPROVED GRAIN DRYER.



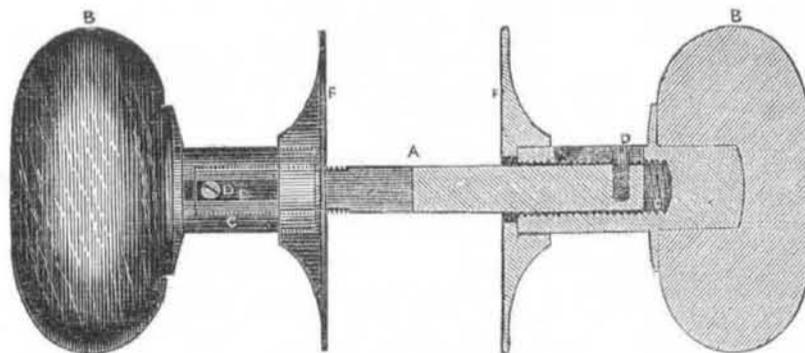
This apparatus is the invention of Mr. Chas. S. Snead, of Louisville, Ky., briefly noticed by us in the Scientific American two weeks ago, on page 244. The grand object of this invention is to produce a great number of changes in the grain, &c., shifting it in its different stages of drying from one drying surface to another, and passing it over a great amount of surface confined in a small space, and heated with steam, so that there never will be any danger of scorching. It will dry the grain slowly but perfectly, and will require no attention whatever, only to keep the hopper full.

Figure 1 is a perspective view. A A A A are the posts or uprights, but other contrivances may be used, as they are only to support the apparatus by flanges, P P. The apparatus principally consists of a series of circular concavo hollow rings, D D D. They are like pipes cut horizontally, but are cast double (hollow) and are steam tight. They are placed above one another a small distance apart.—The upper surface or concavo part of each cir-

cular pipe contains the grain, and forms the channel around which it is moved by a series of revolving rakes, L L, &c. These rakes are secured on shoulders, I, of arms J, radiating from the vertical shaft, G, which is supported in the steps B and C, and propelled by the cog wheel, K, or by any other similar motion to drive the shaft and move the rakes, which move round the grain. The grain falls from one pipe to the pipe below. The pipes are heated by steam, which enters at the box, O, and comes out at the opening, N. E F are the metal boxes to carry the steam from one pipe to another.

To render the explanation more clear still, another cut, and the explanation of it, is placed on page 260.

## IMPROVEMENT ON THE SHANKS OF DOOR KNOBS.



This improvement on the shanks of Door Knobs, is the invention of Mr. William L. Kirkham, of Brandford, Conn., and the improvement, although simple, is an excellent one, its simplicity being a just recommendation to its general applicability. This improvement is in the shank and collars of the

two knobs, to enable one kind of shank to fit doors of different thickness. This engraving represents one knob, its collar and the shank perfect, and the other is a vertical section of the other knob, &c. A is the shank; it is of a square form with a screw, C, cut on each end, and passes through the door, in an open-

ing for that purpose, and into the threads of the collars of the knobs, B B. F F are the circular flanges which are fastened by screws to each side of the door, and fit snugly on the inner ends of the collars of the knobs. Each collar has a slot, E, cast in it, and the shank has a hole in it near each end, to receive the small screws, D D. These screws pass through the slots into the shanks, to prevent the knobs from being screwed around and coming off.—Heretofore the collars of door knobs have been made with holes just to receive the nails, D, consequently shanks of different lengths had to be made for doors of different thickness.—By the simple slots in the collars, one length of shank will answer for doors of different thickness; therefore, in making these shanks, the manufacturer can go on and make any number of them, as every one is capable of accommodating itself to any door. This makes the improvement a valuable one, especially since it is a thing so universally employed.

Measures have been taken to secure a patent.

## Useful Receipts.

### Directions for Preparing Talbotype Paper.

IODIZING—100 grains nit. silv. dissolved in 3 oz. dist. wat.; wash the paper evenly with a brush or clean cotton; spread the paper on sheets of blotting paper, till quite dry. Then immerse it in a bath of iodide, potass. 1 oz. and a pint of water, leave it a very few seconds, not more than twenty; then immerse it in distilled water for some minutes, and afterwards pin up by a corner and dry; lastly, pin it up in the sun for at least an hour.

PREPARING FOR CAMERA—Wash with 1 part nit. silv. (proportion 50 grains to an ounce water): 6 parts sat. sol. of gallic acid, 2 parts acetic acid; take off superfluous moisture with clean white blotting paper.

TO BRING OUT PICTURE—1 part nit. sil. (50 grains to an ounce,) 3 parts, sat. sol. gallic acid; when finished wash in three clean waters; and to fix temporarily, wash bromide potass.; proportion of solution 10 grains to 1 oz. dis. wat.; after some minutes wash and dry.

FOR FINAL FIXING—Immerse in hot bath of 1 pt. sat. sol. hypo. sulph. soda, to 10 pts. water; a couple of minutes will bring out the iodine; lastly, wash with three different hot waters, two or three minutes in each.

COPYING PAPER—18 grains salt, dissolved in 1 pint dist. wat.; soak and dry the paper in a bath of this; then take 30 grains nit. sil. in 1 ounce dist. wat.; add enough strong ammoniac to make it turbid then clear it by adding more ammoniac; with this solution wash your paper with a brush, when dry it is fit for the copying press.

TO FIX—10 grains hyposulph. soda, 1 ounce dist. wat.; lay the copies in a bath of this after immersing them in 3 baths of warm water; and after the hyposulphate immerse them in three waters and then dry.

### Bad Books.

Bad books are like ardent spirits; they furnish neither aliment nor medicine; they are poison. Both intoxicate—one the mind, the other the body. The thirst for each increases by being fed, and is never satisfied. Both ruin—one the intellect, and the other the health—and together, the soul. The makers and venders of each are equally guilty, and equally corrupters of the community; and the safeguard against each is the same—total abstinence from all that intoxicates mind or body.