Scientific American.

Inbentions. On the 12th of December last a patent

252

Aew

of the same place.

ble of.

letters indicate like parts.

Seed Sower.

was granted to John Andrews, of Winchester,

Mass., for a seed sower, and assigned to him-

The grain or other seed is placed in the

hopper, F, by the driver of the machine, who

is seated upon the box, G, the grain in the

hopper, F, passing through the hole, p, and

pipe, q, through the expanding trough or

scatterer, D, upon the extreme end of which

is the sieve, H, through which it is allowed

to pass. In order that the grain may be dis-

tributed over a space much wider than the length of the sieve, H, the latter receives

a swinging motion, around a fixed point, by

which means the seed is thrown to a consid-

erable distance upon each side. This swing-

ing motion is communicated to the scatterer

in the following manner : I is a drum secure-

ly attached to the axle, K, and having a zig-

zag groove, a, in which plays a pin, b, pro-

jecting downwards from the arm, M, secured

to the scatterer. The latter is pivoted to

the frame of the machine at C, and thus as

the drum, I, revolves, the scatterer is vibra-

ted from side to side, and the seed is scatter-

ed over a much wider space than would

otherwise be the case. In addition to this

swinging motion from side to side, the scat-

terer has also a rapid vertical vibratory mo-

tion produced in the following manner : P is

a curved way or support upon which the rear

portion of the scatterer rests, this way is

corrugated or channelled ; Q is a roller up-

on the under side of the scatterer, which

travels upon the corrugated way, P, and

thus as the scatterer is vibrated around its

center of motion it is also rapidly vibrated

in a vertical direction, and the descent of the

grain along the trough is facilitated. In

order that the axle and drum may be turned

by the motion of the wheels, the latter are

connected with the axle by means of the

toothed clutches, which embrace the axle

and are forced up to the wheel by springs,

d. That the scatterer may be made to vi-

brate only when the machine is advancing,

and not when it is backing, the teeth of the

0. By this means the hole, p, may be more filled with the seeds of weeds. To remove seeds of weeds to pass through, but not the The lever plays over a graduated arc for the with the grain the following device is empurpose of graduating the hopper to sow any ployed :- A portion of the bottom of the desired quantity per acre. It often happens seed trough is cut out, and replaced by a

or less enlarged, or it may be closed entirely. these and prevent them from being sown grain; beneath this sieve is a box, r, in which such seeds are collected to be afterwards disposed of. In windy weather the scatterer must be operated much nearer to that grain and other seeds to be sown are sieve, x, of a fineness that shall admit the the ground than it need be upon a calm day,

ANDREWS' SEED PLANTER.



in such case the grain will not be thrown to | machine at s, around this pivot the shafts | be adopted for the purpose of swinging or so great a distance upon each side, and the and the machine are adjusted to each other vibrating the scatterer, but the method defeed of the hopper will require to be dimin- by means of the screw, t, and thus the exished in a corresponding degree. To effect treme end of the scatterer is raised more or this depression the following means are used. less from the surface of the ground as re-The shafts are pivoted to the body of the quired. It is evident that other means may inventor at Winchester.



may be obtained by letter addressed to the



The accompanying figures represent the | a hand lever; C D is a curved sectional tube, improvement in cleaning boilers, for which a with an opening, c, under the partition, b, patent was granted to Hiram Strait, of Covwith which it communicates. The top of ington, Ky., on the 4th inst., and his claim one end of this tube is open in the steam published in the SCIENTIFIC AMERICAN, in the space, the other is a little below it in the list of last week.

Figure 1 is a vertical longitudinal section of a cylindrical steam boiler with the improvement, and figure 2 is an interior view of the back end of the boiler showing the steam blow tube as combined with the sediment chamber. Similar letters refer to like parts. boiler; and E is the steam space above the water line; B is the sediment chamber or space. It is separate from the water space by a perforated partition plate, b, of strong boiler metal, which is fitted snug to the boiler all round its edges, and can only communicate with the water space through the perfo-

water space. By pushing in or drawing out the rod, d, so as to bring the openings of the valve, a, over the blank spaces in the partition, b, water communication will be cut off between A and B, and if the blow-off cock at the front end of the boiler be opened, it is evident that the steam will rush down the A is the water chamber or space of the pipe, C, and force out all the water and sedi-

ment in chamber, B, until the water line is lowered to the lip of the arm, D, of the pipe, paper, winding it upon the roller. These when steam will then rush down both branches. It is plain that no more than a certain amount of water can be blown out of a boiler to which this apparatus is attached, and it is equally plain that the sediment chamber will rations, or rows of holes punched in it; a is be completely swept out and cleansed.-

ter addressed to the patentee, Mr. Strait, at Covington, Ky.

Winding up Lines, Twist, or Cord.

The claims in this week's list of patents granted to Byron Boardman, and Geo. C. Sweet, of Norwich, Conn., relate to a machine for winding up fishing lines, cord, twist, or any such manufacture, into hanks or skeins, of such length as may be desired for sale or use. The patent embraces six claims, and covers a number of devices and combinations in such machinery. The principal working parts in the machine consist of two hooks, which are placed at a distance apart, corresponding to the length to which the line is to be wound, and a sweep which is capable of rotating round these hooks.-The hooks remain stationary, and the sweep rotates around to lay a sufficient quantity of line around them, when it becomes stationary, and the hooks then rotate to perform the woolding or binding round.

Card Exhibitor and Distributor.

The invention for which a patent has been granted this week to Wright Duryea, of this city, whose claim will be found in the usual list, consists in providing a roller in the lower part of the case, and printing the cards at suitable intervals apart on a long strip of cards are guided from the roller to an opening in the case, where they are discharged, and each card can be cut off as desired, a portion of the strip being always held by a spring, to allow of it being caught by the thumb and fingers, to pull out the next card.

Nam Cabin Chain

a broad plate, nearly as wide and long as the Whenever steam is seen to issue from the lutches are inclined upon one side, so that partition, b. It has the same number of per- | blow-off clock, it is closed, and the valve The claim on another page, in the patent when the machine is backed the wheels reforations as b, and when the openings of both plate, a, is pushed in or drawn out, as the granted to Wm. Thomas, of Hingham, Mass., volve without turning the axle. And when are directly above one another, there is free case may be, so as to bring the perforations relates to a chair for the cabins of vessels, it is desired to disconnect the wheels entirewater communication through them between in both plates above one another. The holes so as to give it the same motion as a hamly from the axle, this may be done by pressthe water chamber, A, and the sediment in the partition, b, and large valve, a, may mock. This will be much pleasanter for pasing in the handle of the lever, O. This lever chamber, B, so that the pressure of the steam be made to come above one another, by sengers, and will no doubt prevent many is pivoted at f, and bears, when pressed in, persons from becoming sea sick. upon the ends of two arms, which actuate the is then exerted upon the surface of the water drawing out or pushing in. Rose's Straw Cutter. in the boiler. This is the way the plate, a, The object of this improvement is to make clutch levers, and release the clutches from The improvement on straw cutters, for contact with the wheels. To relieve the is set, when not blowing off, and during the the boiler self-cleaning by making the prestime sediment may be falling down, as the sure of the steam expel sediment, scales, &c., machine from strain, the scatterer is allowed, which a patent was granted this week to Ira as it swings to each side, to strike upon the water is evaporating into steam in the boiler; in the manner described and shown. The Rose, of Akron, Ohio, embraces a peculiar spring stops, i, which yield as they are pressd is a rod attached to the plate, a, which latsediment chamber is not intended to be and simple means of operating the cutting ed in, and gradually overcome its momentum. ter performs the office of a large slide valve. large, only of sufficient size to collect the sedknife and feed rollers, by which these are op-In order to adjust the quantity of grain This rod extends through the end of the boiler iment. This beautiful apparatus appears to erated by the revolutions of a cam only .sowed, the hopper is pivoted at a point, m, in a stuffing box, and may be connected to be capable of doing all that is claimed for it. The device is simple, and not liable to get around which it may be moved by the lever, the engine by chain or rod, or be operated by More information may be obtained by let out of order.