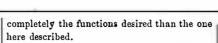
Scientisic American.



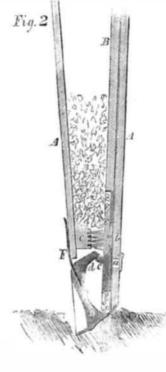
In our engravings we have represented one of these, seen in perspective and as used in Fig. 1, and in section at Fig. 2. A is a seed box having a door or lid, a', at its top, and a planter or movable slide, B, provided with a handle whereby it can be operated, passing through it. Inside the box, A, a brush, C, is fixed, and to the sides of A a shoe of cast iron, D, is hinged, being also connected with the

spring, F, which has the tendency to force it back, making at the same time a clicking noise, thus indicating that the seed has been planted. The planter or slide, B, is shod with iron, and has in it a groove which carries the seed from the box downwards. This groove can be made to hold a greater or less number of seeds as desired, by the slide, E, and screw, b, which can be adjusted through the little hole at the back of the planter, a.

The operation is very simple. The opera-

BOEKLEN & BOSSERT'S CORN PLANTER.





We will now describe the construction of this instrument, having reference to the engraving, which is a section of a magic lantern. A is a box of wood or metal having a chimney, B, and a handle, C. In a round hole in the front is placed a piece of glass called a lens, of convex form, that is, its back is flat and its front side is rounded from the center to the edges, as seen at D; this is called the condenser, because it collects or condenses the rays of light from the lamp, G, which is placed inside the lantern, A. Beyond D is a sliding tube, having at its extremity a lens, F, which is double convex, or rounded at both

Who has not heard of all the wonders of the

magic lantern?-how little figures painted upon glass become magnified into big comic

men and women when seen upon the screen. It is not only a very amusing toy, but a very philosophical instrument, and we dare say that the inventor, Kircher, who was a celebrated

mathematician and philosopher in the seventeenth century, little thought that children

would be amused with it, because he intended it to be an object of study for the monks in their cells. This Kircher was an extraordi-

nary man, he knew a great deal more than

was common among his fellow monks, and he has since been called a man of "immense but undigested learning;" because he made the most extraordinary and random statements

upon the deepest questions of philosophy. In one city of Europe, Nuremberg, many thousands of cheap magic lanterns are made every year, and they afford winter evenings' enjoy-

ment to the children of the whole civilized

its sides, in short, a magnifying glass. In a slit in this tube, the glass slide, E, having the figure, a picture, painted on it, is inserted upside down, and a white sheet being stretched across one end of a room, and all the lights, save the lantern, turned out, the exhibition is ready to commence. "Ah! but," says some young inquisitive who has seen the magic lantern's wonders, "how is it that you see the funny things so large upon the sheet when they are so little on the slide?" We will tell you. The light from the lamp has no escape except through the condenser, which throws a strong light upon and through the colors on the slide, and these colored rays, being confined by the tube, are passed through F, which spreads them out and so makes them meet each other at what is called the focus of the lens (of which we shall have more to say next week), and throws them very large upon the sheet, and there being no other light in the room, they become visible right side up, because the rays have been turned round or reversed by the lens, and it depends upon the distance of the lantern from the sheet whether the figures are large or small.

Improved Corn Planter.

Hand corn planters have now almost taken whole possession of some sections of the country, although a few years ago they were unheard of, and we have no doubt that many farmers will find occasions and places on their farms when and where the hand-planter will be the most advantageous. Among the many hand corn planters that have been invented and patented, none seems to us to fulfil more

tor grasps the handle at B, behind which there is a gage to regulate the depth at which the seed is to be buried, and pushing the box into the ground, a certain number of seeds are carried by B past the brush, which sweeps off the excess into the lower space. Another step is taken, the planter again pressed in the ground; but this time as B is being pushed down, the little projection, c, releases its hold on d, which F pulls away and allows the seed to fall into the ground, the iron shoe of B following them and pressing them the required depth; when B is lifted, the projection, c, catches d, and forcibly causes D to come back and presses the soil upon the seed.

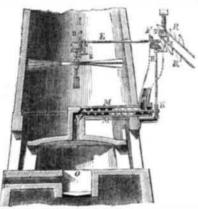
G is an extra handle that can be used should the ground be a little hard, to give the operator more power to force in the planter.

The advantages of this method of planting seeds are obvious, as the seeds being all buried at an equal depth, and each covered with the same amount of soil at the same pressurethat is, that the ground is made equally tight around each seed—the probabilities are that the crop will be more uniform than when there is an irregularity in the planting.

Further information can be obtained by addressing Boeklen & Bossert, No. 57 Essex street, Jersey City, N. J. A patent was secured by R. Boeklen, Feb. 10, 1857.

Wright's Apparatus for Feeding Farnaces.

This figure is a vertical section of a selfacting apparatus for feeding furnaces with fuel, secured by patent in England as the invention of W. Wright, of Newcastle-upon-Tyne, and described in the London Engineer. It is intended to supply fuel regularly to the fire, is especially designed for glass furnaces, and is operated by the draft of the furnace



A is the cone of the glass stack or house; it is furnished with a screw fan-wheel, B, set in the wall, and revolving horizontally in the stack. The bevel gear, C D, operated by the fan, gives motion to the shaft, E, on which are gears, F G, that give motion to the vertical shaft, H, the lower end of which has a worm wheel on it that meshes into another,

K, on the outer end of the archimedean screw shaft, M, working in a round casing, the inner end of which opens into the passage, N, leading to the furnace, O.

The fuel is carried up by an elevator, R R, which is also operated by the shaft, E, through a worm gear, S, on its outer end meshing into a worm, T. The fuel is deposited by the buckets of the elevator into the receptacle, H, thence passes down the channel, P, into the case of M, and is conveyed forward to the furnace passage, N, by an archimedian screw. As the fan wheel, B, is operated by the draft of the furnace, it follows that after it has started, it will supply fuel when properly set for the purpose in quantities proportioned to the combustion, thus forming a constant supply. As there are quite a number of glassworks in our country, this is a subject for the consideration of those engaged in the glass business. The apparatus is also applicable to other kinds of furnaces.

WHILE boring an artesian well at Lafayette, Ind., very recently, after penetrating to the depth of 216 feet, a subterranean stream was reached, which, in an incredible short time, filled the well to the top. The Courier says that "Arabs in the desert could not have been more delighted" than were the citizens of that city. This experiment of an artesian well was made at the expense of the county.

Literary Notices.

Literary Notices.

New American Cyclopedia, Vol. I. D. Appleton & Co., New York. The value of a really good cyclopedia is inestimable, because it is the collection and condensation of the facts contained in many libraries, without the dressing and adornment with which the original authors thought proper to clothe them. A learned divine was once asked by a rich man, what was the use of a library containing so many books? "for," continued the man of money, "you can never read them through." "Let me," said the divine, in reply, "let me ask you, what is the use of your dictionary? yon never read it through." "Oh the dictionary is of great use." "Then sir." replied the other, " what the dictionary is to you, my library is to me—a place of reference." This is exactly the case of cyclopedic literature; one does not expect ever to read a volume through, but it is necessary that almost every person should have a copy on their shelves. Concerning the cyclopedia we are now noticing, we have to remark that the first volume—the only one published—is as near perfection as may be: and what is best of all in our ominon, it contains an index to itself—a thing that has long been wanted. It promises to be bulky, but as it is being issued in parts, there can be no inconvenience in that, because the price places it within the reach of everyone, and we should advise every one to take it, for we have no doubt that it will long remain a standard, and prove a lasting honor to George Ripley and Charles A. Dana, the painstaking, accurate and talented editors. We shall take occasion to give a more critical examination of this work as we receive the subsequent volumes.

The London Quarterly Review, January, 1858. Leonard Scott & Co., New York. This number lass

sequent volumes.

THE LONDON QUARTERLY REVIEW, January, 1858.

Leonard Scott & Co., New York. This number has a fine article on "The Difficulties of Railway Engineering," another on "Tobias Smollett," and an excellent description of Woolwich Arsenal, together with many others of equal merit and utility.

HOUSEHOLD WORDS, conducted by Charles Dickens, for March. Jansen & Co., New York. In this spirited, interesting and entertaining British periodical there are so many articles that deserve especial notice that we are afraid to venture on the task. We may, however, say that in the one entitled, "A Deep Design upon Society," the master hand of the conductor is plainly visible.

AMERICAN FARMERS' MAGAZINE for March. J. A. Nash, editor and proprietor, 7 Beekman street, New York. This is a most valuable publication and should be in the hands of every farmer in the country, as it gives them all the information that they require on subjects which possess interest and value to their business and labor.

AMERICAN DERUGGISTS CIRCULAR AND CHEMICAL GAZETTE. H. Bridgeman, Beekman street, New York. This is a journal which contains information not only for the druggist, but everybody who has any desire to be taught and to hear of the discoveries and inventions which are taking place in the chemical and medical world

EDINBURGH REVIEW. This able Review, for this quarter, published by Leonard Scott & Co., No. 54 Gold street, this city, contains nine sterling essays. The leader is on the "Prospects of the Indian Empire," and is a subject of intense interest at the present moment. The author of it appears to be well services in the contains the



INVENTORS, MANUFACTURERS, AND FARMERS.

THIRTEENTH YEAR!

PROSPECTUS OF THE

SCIENTIFIC AMERICAN.

This work differs materially from other publications, being an Illustrated Periodical, devoted to the promulgation of information relating to the various MECHANI-OAL and CREMICAL ARTS, MANUFACTURES, AGRICULTURE,
PATENTS, INVENTIONS, ENGINEERING, MILL WORE, and all interests which the light of PRACTICAL SCIENCE is calculated to advance.

Every number of the SCIENTIFIC AMERICAN contains eight pages of reading matter, abundantly illustrated with from five to eight Engravings—all of which are expressly engraved for this publication.

All the most valuable patented discoveries are de-lineated and described in its issues, so that, as respects inventions, it may be justly regarded as an Riustrated Repertory, where the inventor may learn what has been done before him in the same field which he is exploring and where he may bring to the world a knowledge of his own achievements.

Reports of American Patents granted are also published every week, including Official Copies of all the PATENT CLAIMS. These Patent Claims are furnished from the Patent Office Records expressly for this paper, and published in the SCIENTIFIC AMERICAN

n advance of all other publications.

Mechanics, Inventors, Engineers, Chemists, Manufacturers, Agriculturists, and people in every profession of life, will find the SCIENTIFIC AMERICAN to be of great value in their respective callings. Its counsels and suggestions will save them hundreds of dollars annually, besides affording them a continual source of knowledge, the value of which is beyond pecuniary Much might be added to this Prospectus, to prove that the Scientific American is a publication which every Inventor, Mechanic, Artisan, and Engineer in the United States should patronize; but the publication is so thoroughly known throughout the country that we refrain from occupying further space

TERMS OF SUBSCRIPTION-Two Dollars a Year, or One Dollar for Six Months.

Southern, Western and Canadian money or Post Office stamps, taken at par for subscriptions. Canadian subscribers will please to remit twenty-six cents extra on each year's subscription, to prepay postage.

CLUB RATES. Five Copies, for Six Months.....
Ten Copies, for Six Months.....
Ten Copies, for Twelve Months...
Fifteen Copies, for Twelve Months.
Twenty Copies, for Twelve Months

For all clubs of Twenty and over, the yearly sub scription is only \$1 40. Specimen copies will be sen

gratis to any part of the country.

MUNN & CO., Publishers and Patent Agents, No. 12-3 Fulton street, New York.

