The Scientific American.

Improved Broadcast Seeding Machine. There is a vast difference in the way seed is sown broadcast, or scattered about, here and there, without reference to regularity. Some men sow it evenly, while others pitch the seed down in handfuls. and when it sprouts hundreds of plants are crowded close together, while great patches of ground are left entirely bare. As it is obvious that a machine properly designed would do the work much better than by hand, it follows that such a machine would be de sirable.

The machine here shown is well arrranged for its purpose. The seed to be sown is placed in a triangular hopper, A, which is carried on the forward end of the machine. This hopper has a number of aper-

cent of ready cash-succeeding to Gen. Fremont's property and his style of doing business-has come to grief. Its most worthy superintendent and manager, Mr. Frederick Law Olmsted, who was beguiled out here under a gross misapprehension of the situation of affairs and the duties he was to perform, is going home disgusted, to resume more congenial occupation in the East. The sheriff has been brooding over the estate for six months, and its local creditors are running one or two of its mills and mines on a close and economical scale-using up accumulated materials, but laying in no new supplies-in order to obtain their claims. The ore now being obtained and thus washed returns from \$7 to \$10 a tun, which gives a small margin of profit. It is all a sad, vast ruin



CRICHTON'S BROADCAST SEEDING MACHINE.

tures, B, closed by a slide, C; this slite having holes | a magnificent gentleman, holding his head high, but also which regulates with those in the hopper.

Inside of the hopper is a number of wheelsopposite each opening-and so arranged with reference to it that when they are revolved by the gearing, D, the seeds are pushed out of the opening, from whence they fall on the ground.

The slide is regulated as to the openings by the screws, E, on the hopper.

A lever at the side of the operator serves to disconnect the gears, so that the seeding device is not operated except at the will of the driver.

The machine may be made of anylength, from 10 to 161 feet. This size will sow 40 acres per day as evenly as possible, of any seed under Indian corn. In draft it is very easy. It is also very durable, and is easily repaired by any mechanic in case of accident.

It was patented through the Scientific American Patent Agency, on Jan. 10, 1865, by W. H. Crichton, of Laporte, Ind.; for further information in regard to sale of State rights or territories, address the inventor at that place.

Sad End of the Mariposa Estate.

Samuel Bowles, Esq., the able editor of the Spring-field Republican, in a letter from California, gives this account of the present condition of Fremont's famous Mariposa estate:-

"But here, in Mariposa County, the interest has a different look, and affairs are in a desperate condition. There are in all ten quartz mills here, all, or nearly all, on the Fremont estate, but only two or three are now running, and these with moderate results. The villiages are decrer sing in population; the best people are going away; viciousness of all sorts seems to be increasing, and highway robberies are of almost nightly occurrence. The great Mariposa Mining Company, formed in Wall street two years ago, with a capital of ten millions, a debt of two millions, and not a field, and the Housatonic valley, in Berkshire county.

wearing his last year's clothes, and dining around with his friends-a sort of grand land and mine Micawber. There is, doubtless, life and value, possibly great wealth, in it still, but not of the sort or degree that has been set up for it. Divided up, and conducted by private parties or small companies on a moderate capital, as the Grass Valley mines are, or managed as a whole even, with an eye to practical results alone, and no such side issues as the Presidency, or a grand Wall street stock-jobbing operation, or the control of California, politics depending on it. and drawing its life-blood, the estate may yet have a useful future before it. But the end to it as a grand principality, as an exhaustless fountain for political and financial jobbing, seems surely to have come. Indeed, its most striking capacity always has been in carrying an immense, a magnificent indebtedness. A few men are rich from it here and in the East; but their wealth is more from the sale of stock and bonds in New York than the profits of the mines in Mariposa. Theillustration of the whole lies best, perhaps, in the sincere boast attributed to its most gallant but never thrifty original owner. 'Why,' said Gen. Fremont, 'when 1 came to California, I was worth nothing, and now, I owe \$2,000,000 !'"

THE Scranton Register says that coal in the bed is valued at twenty-five cents per tun, that it costs eighty cents to mine it, and eighty cents more to prepare it for market-a total of one dollar and eightyfive cents. All that is charged above that is to be placed to the account of transportation and the profits of agents.

HALF the writing paper made in the United States is made within twenty-five miles of Springfield. The great writing-paper manufactories in the country are in the Connecticut and Westfield valleys, near Spring-



This valuable journal has been published nineteen vears, and during all that time it has been the firm and steady advocate of the the faithful chronioler of the

PROGRESS OF ART, SCIENCE AND INDUSTRY The SCIENTIFIC AMERICAN is the largest, the only reliable and most widely-circulated journal of the kind now published in the United States. It has witnessed the beginning and growth of nearly all the great inventions and discoveries of the day, most of which have been illustrated and described in its columns. It also contains a WEEKLY OFFICIAL LIST OF ALL THE PATENT CLAIME, a leature of

great value to all Inventors and Patentees. In the

MECHANICAL DEPARTMENT a full account of all improvements in machinery will be given. Also, practical articles upon the various Tools used in Workshops and Manufactories.

HOUSEHOLD AND FARM (MPLEMENTS: atter department being very full and of great value to Farmers and Gardeners; articles embracing every department of Popular Science, which every body can understand,

STEAM AND MECHANICAL ENGINEERING

will continue to receive careful attention, and all experiments and practical results will be fully recorded.

WOOLEN, COTTON AND OTHER MANUFACTURING INTEREST will have special attention. Also, Fire-arms, War Implements, Ordnauce. War Vessels, Railway Machinery, Mechanics' 1001s, Elec-tric, Chemical and Mathematical Apparatus, Wood and Lumbermachines, Hydraulics, Pumps, Water Wheels, etc.

PATENT LAW DECISIONS AND DISCUSSIONS

will, as heretofore, form a prominent feature Owing to the very large experience of the publishers, Messrs. MUNN & CO., as SOLICIT-ORS OF PATENTS, this department of the paper will possess great in terest to PATENTEES AND INVENTORS.

The Publishers feel warranted in saying that no other journal now published contains an equal amount of useful information while it is their aim to present all subjects in the most popular and attractive manner The SCIENTIFIC AMERICAN is published once a week, in conven

form for binding, and each number contains sizen pages of useful reading matter, il'ustrated with

NUMEROUS SPLENDID ENGRAVINGS

of all the latest and best investions of the day. This feature of the journal is worthy of special notice. Every number contains from five to ten original engravings of mechanical inventions, relating to every department of the arts. These engravings are executed by artists specially employed on the paper, and are universally acknowledged to be superior to anything of the kind produced in this country

TERMS OF SUBSCRIPTION.

Per annum......\$3 00

Six months..... 1 50

Two volumes each year, 416 pages-total, 832 pages. SPECIMEN COPIES SENT FREE, Addre

MUNN & CO., Publishers. No. 37 Park Row, New York City

PATENT AGENCY OFFICE.

MESSRS. MUNN & CO, have been engaged in soliciting American and Foreign Patents for the past eighteen years. Inventors who wish to consult with them about the novelty of their inventions are invited to send forward a sketch and description. If they wish to get their applications into Munn & Co.'s hands for prosecution they will please observe the following rules:-

Make a'substantial model, not over one foot in aize. When finished, put your name upon it, then pack it carefully in a box, upon which mark our address; prepay charges, and forward it by express. Send full description of your invention, either in box with model, or by mail: and at the same time forward \$16, first patent fee and stamp taxes. As soon as practicable after the model and funds reach us, we proceed to prepare the drawings, petition, oath and specification,

and forward the latter for signature and oath. Read the following testimonial from the Hon. Joseph Holt, for -Read the following testimonial from the Hon. Jose merly Commissioner of Patents, afterwards Secretary now Judge Advocate General of the Arm y of the United States:-

For further particulars see advertisement inside, or send for Pam. For further particulars and MUNN & CO., phlet of Instruction. Address No. 37 Part Row New York City.

FROM THE STEAM PRESS OF JOHN & GRAY AND GREEN