Science and Art.

Patent Law Changes.

The recent discussion of proposed changes in the Patent laws in our columns has attracted considerable interest among our readers, and we have received quite a number of communications upon this subject. The leading suggestions of their authors are but confirmations of the views we have already expressed, and therefore we do not think we are justified in devoting space to their publication. We are much obliged for these communications. They are cheering proofs of the correctness of our views on this important subject.

Ericsson's Hot Air Engines on the State Canals.

We notice in the reports of the doings of the Legislature of this State, as published in the New York Herald, that "Mr. Armstrong has introduced a bill in the Assembly to incorporate a company with the title of the 'Ericsson Manufacturing and Navigation Company.' The corporators are John Ericsson, J. B. Kitching, Cornelius H. Delameter and James Hogg; and their objects and purposes are the building, equipment and propelling of vessels on the navigable waters of this State, by means of engines whose power is heated air or caloric, as now patented, or as may from time to time be patented by Ericsson or his associates. Their capital stock is to be \$500,000, in shares of \$100 each. They are authorized to use boats with this motive power on the canals, provided they put them on within eighteen months from the passage of the act. In that case they have the exclusive privilege, for thirty years, of towing boats carrying freight and passengers on the canals of the State; provided their boats are so constructed as not to produce any greater wash or wear and tear to the canals than is produced by the boats now in use. The boats used are to receive the sanction and approval of the Canal Commissioners, and submit to such restrictions as to speed, right of way, &c., as is necessary to the preservation and safe navigation of the canals."

It is desirable, unquestionably, to introduce some system of propulsion on our State canals more in harmony with the spirit of the age; but we must condemn all attempts of this character. They are at war with all true notions of progress, and will meet with no encouragement from practical legislators. If the Ericsson scheme is best adapted to change the present system, we shall cheerfully advocate its introduction, but not as an exclusive monopoly. Ericsson is secured in the full enjoyment of his rights as an inventor under the grant of Letters Patent. He has but to show by proper experiment that his plan is best, and it will, no doubt, be adopted, and the privilege will belong to him so far as the right to build and operate his inventions is concerned. Such an attempt as this to obtain a complete monopoly of the State canals might have been tolerable, if proposed in the days of Prince Rupert and Jonathan Hull; but in this stirring age of improvement, a "thirty years exclusive privilege" smacks of a past generation.

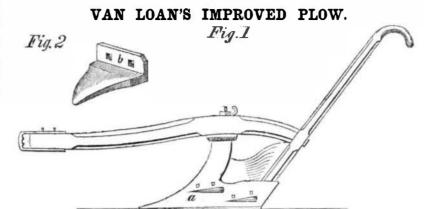
There are some inventors so impatient of success that they are never satisfied to let their discoveries stand out upon their own merits. They must be continually nursing up some magnificent scheme-some giant enterprise—through which to startle a whole world. These comet-like effusions dazzle but for a moment, while the light of a steady progress continues to shine on, not a whit the less sure, though those eccentric comets may have momentarily intercepted its rays.

Improved Plow.

As every one engaged in the cultivation of the soil is interested in all improved implements for this purpose, we present to their attention two plows which are specially designed for the purpose of superseding the harrow and the spade. It is well known that it is of the

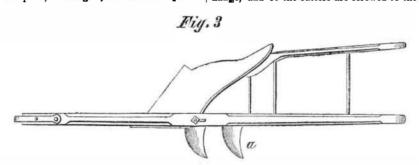
should be broken up as finely as possible, so sorb from the air much of the material which | had been harrowed.

utmost importance to the farmer that the soil | will enable it to sustain the plant. The ordinary method of breaking up the soil is by that every particle may be exposed to the in- cross-plowing or by harrowing, but this plow vigorating action of light, and also may ab- cuts and breaks up the ground as well as if it



the plow, seen at a, Fig. 1, which is aside view | b, Fig. 2, and bolts are passed through this of the plow, and Fig. 3, which is a top view | flange, and so the cutters are screwed to the

The improvement consists in attaching one | of the same. These cutters are attached to or two horizontal cutters to the land side of | the landside of the plow by means of a flange,

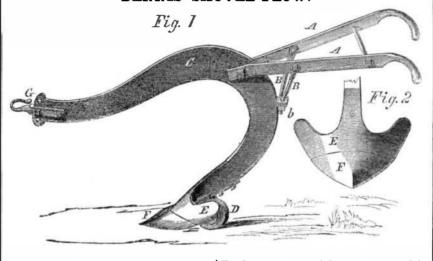


plow. There is a slot in the landside of the | entirely when necessary, as when plowing plow, through which the cutter is passed, and the bolts are put through the side of the plow, and passed through the flange inside. By taking off the bolts, the cutters are easily removed for sharpening, and they can again

stony ground.

This plow was patented Feb. 16, 1858, by the inventor, W. W. Van Loan, of Catskill, N. Y., who will dispose of rights for the Atlantic States, and will be happy to furnish be easily attached, or they can be removed any further information that may be desired

DENNIS' SHOVEL PLOW.



The adaptation of the plow to cultivating, as well as turning up the ground, is a valuable application; and those plows which break up the ground without leaving a furrow, are called from their shape, "shovel plows." They are used for cultivating cotton and sugar, and sometimes, when the ground is light, for breaking up, as in the sandy soil of South

The plow which is the subject of our engraving is the invention of Paul Dennis, of Bemis Hights, N. Y., and was patented by him February 23, 1858. It goes through the ground at any required depth, and leaves the ground quite mellow, with all the weeds cut

A A are the handles, secured to the beam, C, by means of the straps, B B, bolted to it at b. The beam, C, has an adjustable hook, to which the horses are attached at G, that can be raised or lowered as convenient. The mold-board. E. is screwed to the beam, and is shaped as seen in Fig. 2, the earth rising up it, and falling through the arches at its edge into the furrow again. The share, F, is also connected by an under plate, and screws to building, is \$2,500.

E. In consequence of the arrangement of the parts, the share can be easily removed, to be sharpened or repaired, and the mold-board does not scatter the earth, as is common, but passes it back over itself into the furrow.

It is a most convenient and useful shovel plow for general purposes.

Any further particulars can be obtained from the inventor as above.

Mosier's Sod Corn Flanter.

In our description of this invention on page 36 of the present volume, we omitted to state that it was especially applicable for sod corn planting, and that it could be fixed to the fore axle of a cart as well as to any special wheels. The inventor, P. C. Mosier, resides at Homer, Illinois, and not at Homer, Michigan, as we previously stated.

THE long pilasters for the U.S. Treasury building, weigh from forty to forty-five tuns. It requires to draw them ten heavy yoke of oxen and four stout horses. It is stated that the cost of each pilaster, when in place on the

Literary Notices.

VENTILATION IN AMERICAN DWELLINGS—By Dr. D. B. Reid. Wiley & Halstead, New York.—The author of this work, who is, without exception, the greatest authority on ventilation, has here given us the results of his observations while in this coantry, and many practical suggestions by which we all may profit. By an extraordinary contradiction, the inhabitants of this country—enjoying as we do one of the most healthy climates in the world, our chief cities placed within reach of the Atlantic breezes, or else on the banks of some gigantic river, with every advantage of climate and geographical position—yet want the animal force, the rude health, and robust constitutions of our Saxon and Celtic ancestors. "Why is this?" is a question often asked, and the truthful answer, "bad ventilation," is as often given, yet no one attempts to remedy the matter and begins to ventilate his own house. In summer we expose ourselves tocontinualdrafts, and in winter crowd together in stifling hot rooms, and so take every possible opportunity of committing modified suicide. One great preortunity of committing modified active were the summer of the

the benefit of our readers.

THE MAGICIAN'S OWN BOOK—Dick & Fitzgerald, New York—This is a well arranged and admirably gotten-up book, explaining the majority of tricks performed by so-called magicians, and illustrated with a great number of engravings. Much useful information is also introduced, and the philosophy of the tricks is fully explained. It is a book that sheuld be possessed by every boy, as it will teach him much, and keep him out of mischief for many an idle hour, besides helping to endow him with the faculty of promoting the enjoyment of others.

THE ECLECTIC MAGAZINE for April. W. H. Bidwell, editor and proprietor, New York.—This magazine contains handsome portraits of the Prince and Princess of Prussia. a very able article on the creat French orator Bossuet, and many others of universal interest and great ability.



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