

MUNN & COMPANY, Editors & Proprietors,

PUBLISHED WEEKLY AT NO. 37 PARK ROW (PARK BUILDING), NEW YORK.

O. D. MUNN, S. H. WALES, A. E. BEACH.

NGT " The American News Company," Agents, 121 Nassau street New York.

EXP Messrs. Sampson Low, Son & Co., Booksellers, 47 Ludgate Hil. London, Kngland, are the Agents to receive European subscriptions or advertisements for the SoleNTIFIC AMERICAN. Orders sent to then will be promptly attended to.

VOL. XI. NO. 22.... [NEW SERIES.].... Twentieth Year NEW YORK, SATURDAY, NOVEMBER 26, 1864.

Contents:

(Illustrations are indicated by an asterisk.)

EXTENSION OF PATENTS-FOR WHOSE BENEFIT THEY ARE GRANTED.

There seems to be an impression among inventors that since the law of March 4, 1861, went into force. the previous law, in respect to extending patents for seven years, was abrogated. This is not so in regard to cases which were patented under the old law. Any patent which was granted prior to March 4, 1861, may be extended for seven years on proper application to the Patent Office, provided the patentee has not already been amply remunerated for his invention. and proves to the satisfaction of the Commissioner that he has used proper diligence in attempting to realize gains from his patent. The patentees of 1851 should lose no time in making out a statement of their profits and losses in consequence of their patents, and in seeing counsel in regard to an extension, if they wish the term of these expiring patents continued for another seven years.

It is often the case that the extended term of a patent produces to the patentee a ten-fold profit over the amount realized during the first fourteen years of its existence. The assignees of a patent cannot obtain this extension ; it must be done at the instance of the inventor-or, if deceased, his heirs may apply for the extension, but in either case ninety days' no tice of their intention should be given-for whose sole benefit it is granted.

For full particulars concerning extension, address

MUNN & CO.,

Editors and Proprietors of the SCIENTIFIC AMERICAN 37 Park Row, New York.

THE VALUE OF AN IDEA.

"A penny for your thoughts," says the old saw, and the valuation was doubtless tull compensation for those that occupied some men's minds. But thoughts are worth more than a penny now-a-days, and the ideas which are suggested by thought represent millions. The man who got the idea of a clothes-wringer made money; Wilson, of the sewing-machine which bears his name; Horace Thayer, who makes the blacking boxes with wooden bottoms; the inventor of the swinging cigar-lighter, which we see in every store; all these can bear testimony to the value of ideas, as connected with articles in daily use, relating to the improvement or entire supercession of them by better ones. No one should be deterred from putting his very uncertain.

ideas into some tangible shape, from the supposition that the field of invention has been exhausted. "My sons," said a dying farmer, "there is a treasure hidden in our fields, set to and dig for it." Thereafter they dug, but found no gold; instead, upon the year ensuing, the fields that had been so thoroughly upheaved returned a thousand fold the seed which had been sown. It is thus with ideas-thought breeds them-and from them may spring the one golden beam which all men seek. Some men's ideas run upon perpetual motion; these are idle dreamers, seeking to accomplish what the laws of nature forbid; but others, more practical, turn their attention to the arts, to the sciences, and to real progress. These are they who shall win rewards. Not pence, but pounds; not shillings, but dollars, attest in hundreds of instances the value of an idea as applied to the improvements in the arts.

AMERICAN THREAD.

Before the war English spool cotton almost monopolized the market for that class of goods. Coates's cable cotton was in universal demand, and gave general satisfaction. With the derangement of the currency and increased rates of exchange, however, its price speedily ran up to four times its old rates, and a fair field was opened for American manufacturers to compete. This they have done satisfactorily, and those who are familiar with the trade, as well as with the testimony of consumers, know there are no foreign threads superior to those made by such concerns as the Willimantic Linen Company, Messrs. Green & Daniels, Merrick's, Shaker, Perry's "Water Twist," Walter's "Circassian," etc. The "Willimantic Linen" thread, in particular, is remarkable for its regular size, hardness, smoothness, freedom from knots, and rotundity. It is in all respects equal to the finest English cotton imported. It runs in sewing-machines as well as silk twist, and has the additional merit of cheapness, it being sold at 12 cents per spool. With the other goods of other firms alluded to we are not so familiar, but have heard them highly spoken of, particularly that of Messrs. Green & Daniels. The Shaker" thread has a notice on the end of each spool suggestive of the principles of the community whose name it bears. This notice runs, "honest measure on every spool;" and a dealer assured us that there was more likely to be 205 yards than an inch less than an even number.

Other articles in daily demand have been strikingly increased since the war broke out, and it is a question whether, beyond the loss of kindred and friends in the strife, we are not better off in all that relates to advancement than when we had the incubus of the South to carry on our shoulders.

THE WAY TO FORETELL THE WEATHER.

A correspondent requests us to inform him if there is anything that will indicate changes in the weather better than a barometer.

We have in our office a good barometer which we have watched for several years, and we do not consider it as good an indicator of wet or fair weather as the weather-vane. In this region a southeast wind is almost certain to bring a rain within 12 hours, while a northwest wind always brings fair weather in the course of 2 or 3 hours. A northeast wind is generally accompanied by rain or snow, but not always; we have known the wind to blow from the northeast for several days in succession, and the sky to continue perfectly clear all the time. With a southwest wind the weather is wholly uncertain, though more likely to be clear than rainy. For the coming of a northeast storm the telegraph is the most trustworthy of all indications. Dr. Franklin observed that these storms always commence at the southwest, and travel against the wind. They are several hours in coming from Washington to New York, and we are surprised that our shipping merchants do not arrange to have the commencement of a northeast storm at any place lying to the sonthwest of this always telegraphed to New York and Boston, and promptly made known to the shipping interest in these cities. A sudden fall of the barometer is generally followed by a high wind, but the indications of this instrument in regard to fair or foul weather are

FAILURE OF AN ENGLISH IRON-CLAD.

Our English friends seem to be in an unenviable state of uncertainty concerning the best system for iron-clad ships of war. No sooner do they build than they tear down, and the work of alteration is continually going forward. The Royal Sovereign, Capt. Cole's turret ship, is laid up in ordinary, and the last English mails bring intelligence that the Warrior, the sometime "model" iron-clad, has been put in dock and dismantled, for the purpose, says the London Post, Palmerston's organ, "of making extensive alterations." The same authority also says :-

"The announcement that the Warrior has within the present week been taken into Portsmouth harbor, previous to being paid off and dismantled, will probably excite no little astonishment. It is true this step was resolved upon by the Admiralty some time since; but as comparatively few of the public are, as the Americans say, 'posted' in naval matters, the intimation that the Warrior has ceased to be an effective vessel of war at the disposal of the government must occasion considerable surprise. The ways of the Admiralty are so thoroughly inscrutable that we will not attempt to divine the reasons that have prompted it to order a ship to be dismantled which was generally supposed to be one of the most efficient in the service. The reasons are doubtless weighty, and we will assume that the course now taken is that most conducive to the interests of the public service. But the fact that a vessel built at an enormous cost, almost new, and which has never up to the present done any service which could not have been just as well performed by the oldest tub in her Majesty's dockyards, is on the point of being dismantled, is one which cannot fail to excite comment. We are new to the art of building armor-plated vessels, and proficiency in it, as in all others, must be dearly purchased. But costly experiments should be closely watched, and no department of the State indulges in costlier ones than the Admiralty. The sums annually voted for the navy estimates are immense; yet, nevertheless, we always seem to be engaged in the reconstruction of our fleets. Vessels are built at an enormous expense, sent to sea for a few months, then docked, then dismantled, and then built over again. If any particular case is isolated from the others, it may be easy to demonstrate that the course taken by the Admiralty is unexceptionable, but one is nevertheless induced to question whether so many costly failures cannot be avoided. We cannot lag behind in the terrible race of competition which is forced upon us by other States."

It is rather costly to build an iron-clad fleet by experimenting, but as the English Lords of the Admiralty do not earn the money they spend, it probably makes no difference to them. Our experiments in this line have taken the form of practical operations. and the Atlanta, the Tennessee and the Merrimac can testify to our prowess. There is not an American monitor laid up to-day, and not one that cannot go anywhere under fire that would sink a broadside iron-clad in five minutes.

Electro-plating by Magneto-Electric Machines.

In our last issue it was stated, on authority of Mr. L. L. Smith, that he had abandoned the use of magneto-electric machines for electro-plating, and resumed the use of batteries. Mr. Beardslee, of College Point, informs us that he continues the use of the machines referred to, and considers the cost of steam power for these machines less than that of acids and metals for batteries to do the same work.

SILLIMAN'S JOURNAL.-The November number of this old magazine fully maintains the high character of the publication, and at the same time exhibits, perhaps, on the part of the publishers, a disposition to give the articles a somewhat wider popular interest. Professor Ogden N. Rood, of Columbia College, contributes a profusely illustrated paper on photographs of the electric spark; Pliny Earle Chase, of Philadelphia, continues his profound but remarkably lucid discussions of barometric fluctuations; there is a long biographical notice of Heinrich Rose, and the usual variety of scientific intelligence and discussion. The work continues to be published by B. Silliman & B. Silliman Jr., at New Haven, Conn.