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NEW YORK, SATURDAY, MARCH 16, 1878.

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For the Week ending March 16, 1878.

Price 10 cents. To be had at this office and of a'l newsdealers I. ENGINEERING AND MECHANICS .- John Bourne, C. E. Biographical Sketch, with Portrait. His Improvements in Marine Engineering. His Invention of the Marine Governor, Marine Tubular Boller, Expansion Valve, etc. His High Speed Engine. His Contributions to Engineer-

ing Literature. The Non-Piston Age of the Steam Engine. An examination of the Claims of some so-called Inventors of the Steam Engine, with 6 illustrations. De Cau's, Marquis of Worcester's, and Sayery's Steam Pump. Pontifex's Water-Raising Engine. The American Pulsometer.—An-Pontifex's Water-Raising Engine. drade's Steam Engine Governor. 4 illustrations.-The Soper Rifle. 2 engravings.

The Billerica and Bedford, Mass., Two-Feet Gauge Railway. The Route, Grades, Cuts, Curves, etc. The Ties, Ballasting, Culvers, and Bridges. The Locomotives, illustrated with Table of Dimensions. The Freight, Excursion, and Passenger Cars. Equipment and Cost. 4 illustration

The Brace Problem. 1 illustration.-Metallic Packing. 3 illustrations. II. TECHNOLOGY .- Jones' New Milling Process. 2 illustrations .- Collodionized Tissue

The Art Manufactures of Japan. By CHRISTOPHER DRESSER. paper read before the Society of Arts. Japanese Potteries. The Japanese Weaving. How Fine Japanese Fans are Made. Japanese Method $of \ {\bf Preparing} \ {\bf M} oulds \ for \ {\bf Ornamental} \ {\bf Castings} \ for \ {\bf Vessels}, Bronzes, etc.$ Japanese Lacquer Manufacture. Curious Method of Decorating Lacquer Work.

WANTED: A LEGAL PROCESS FOR CONFISCATING INVENTIONS.

Seriously, a legal process for the confiscation of certain kinds of property is just now urgently called for. It is very much needed-by a few rattle-brained extremists of the communistic sort, do you say?

We do not mean them. They are neither numerous enough nor influential enough to be taken account of here. The parties now begging for legal power to seize and convert to their own uses such property as they desire and do not wish to pay for, are not communists. They have a most wholesome respect for tangible property. They are clear parently unfair to inventors. headed business men, and rank among the most honored and honorable in the land.

Impossible? Paradoxical rather, yet absolutely true. The parties interested in this iniquitous scheme are great among the financial and political powers; and they mean to get what they want. Already a bill drawn in their interest is before Congress, and there is no small danger of its becoming a law. The property they covet is, to be sure, intellectual property; but that does not change in the least the principles involved. Nor does it lessen in the least the wrong of the proposed robbery to describe the property to be seized upon as "abandoned and worthless."

The logic of the would be confiscators' plea runs somewhat like this. Certain persons have taken out patents which have no real or practical value. The inventions patented have never been put into successful use, either because of imperfection or because the owners of them have not had the means to develop them. Be that as it may, the patents lie undeveloped or abandoned, consequently worthless. But these worthless patents are a serious hinderance to the complainants, who want to use the principles or devices they involve in the conduct of their affairs. To be restrained VOL. XXXVIII., No. 11. [NEW SERIES.] Thirty-third Year. from so using them by the unexpired life of the patents, is to be subjected to inconvenience and serious loss. Consequently the complainants demand that the patent law be so changed that they may freely use these "worthless" vet desirable devices without being called upon to account therefor to the inventors.

Speaking in behalf of railway corporations, the Chicago Railway Review puts this plea very plainly; and argues it with amusing unconsciousness of the circumstance that the desire of the railway companies to confiscate and control such patents puts the reality of their value in the plainest possible light. If they were worthless, as alleged, nobody would want them. After describing the disadvantages the railways labor under in consequence of the vitality of unused inventions, the *Review* says:

"The railroads, therefore, demand nothing but simple justice when they ask that some modification of the law be made which will put an end to claims made under these abandoned patents. We will not attempt, at this time, to suggest the exact modification which would secure this end. We only insist that the principle should be embodied in the patent law in some practical form. Possibly a provision limiting a recovery, in a suit for infringement, to damages accruing during such periods only while the invention was in successful public use, under direct license or authority from the patentee or his assigns, and to such an extent as to give general notice to all of its successful operation, would be sufficient to accomplish the purpose."

No doubt it would: certainly in case, as the Review insists: "This provision should be so worded that the courts more than a mere provisional experiment, or one especially arranged to comply with the requirements of this act. It should be successful, not merely in the sense that a machine could be constructed under the patent which could be made to do the work for which it was designed, but that, as matter of fact, its manner of doing this work had so commended itself to the public, that it had passed into such profitable and sufficiently extended use as to entitle it to be termed a success in the ordinary acceptation of that term."

The Review suavely remarks that "much more stringent provisions could be framed;" but it considerately rests with the above, against which it can see no "just objection." Perhaps not: perhaps, on the other hand, inventors might. Let us see how it would work.

Mr. A. makes and patents an invention designed to indone so much for the acquisition of geographical informaese Potter at Work. Curious Mode of Making Scarfs. How the Japan-crease the cheapness, safety, or simplicity of some appliance tion," and with respect to the Congo and the Nile, "He ese Print on Cloth. Japanese Process for Silk Ornamentation. Japan- or process of importance in railroading. The more valuable has solved an enforma that has attracted the attention of the the invention the more the railroads will have to pay for the world for ages, and has fixed his name in the foremost rank use of it; we might add also, the more it will contribute to of geographers, explorers, and travelers." their prosperity, but that is beside the question. The preg-Suggestions in Decorative Art. 4 illustrations.—Aroma of Butter.— inant fact in this connection is that the railroads will have to _____ A CONGRESSIONAL SCIENTIFIC EXPEDITION. pay for the invention if they use it; and naturally they will prefer to use it without paying. The Senate Committee on Commerce has reported favor-Now the inventor cannot build railroads for the sole pur- ably a bill to authorize the granting of an American register. pose of applying his invention. To prove it successful "in to a foreign built ship for the purposes of the Woodruff the ordinary acceptation of that term," as the Review has it, Scientific Expedition. The bill has already passed the the invention must be used continuously and profitably on House of Representatives; and it operates to enable the prosome existing road. The interest of the railways lies in jectors of the above named scheme to purchase a vessel proving it not a success, and the proof rests entirely with abroad and sail her wherever they choose under the nathem. The invention is tried, but for obvious reasons its use tional protection. The measure also virtually gives nastops with "a mere provisional experiment." The railway tional recognition to the project as of superior scientific officials declare it a failure, and prove it such, in the eye of importance. the law, by declining to use it. In view of the foregoing, the New York Tribune has Subsequently the proper person in one of the railway made a careful investigation of all the circumstances attendshops makes the required "improvement," whereby the in- ing the inception and progress of the scheme, and publishes

whistle for his pay, since the law debars his recovering anything for the "worthless and abandoned" prior invention, which never passed beyond a mere preliminary trial.

Candidly, the communists' demand for a "fair divide" is manly and honest compared with such a roundabout legal confiscation of all an inventor's rights.

We do not charge the advocates of the proposed amend. ment of the patent law with any intentional robbery: they have merely made their demand a little too strong. It rests with Congress to say whether progress in the sciences and the practical arts is to be "encouraged" by devices so trans-

GEOGRAPHICAL PROGRESS.

The annual address of the President of the American Geographical Society furnishes as usual an interesting review of the past year's work in geographical exploration. The grandeur of Stanley's achievement dwarfs all the rest to relative insignificance; nevertheless enough else was done in other parts of the world to make the year a notable one for geography even with Stanley's work left out.

In our own western territories and in certain portions of South America an unusual number of expeditions for geographical exploration have been sent out; and considerable good work has been done also in Central and Eastern Asia, the Indian Archipelago, and Australia. In Asia many explorers have been at work in Palestine, Persia, Turkestan, Thibet, China, India, and Japan. In South America Rivira and Werthemere have explored the mountains of Peru; Weiner has been at work in Bolivia, and Moreno in Patagonia.

At home the explorations of the United States corps of engineers have been, as our readers already know, both extensive and notably successful. The same may be said of the surveys under the direction of Professor Hayden. Of -more immediate interest to ourselves has been the resurvey of the eastern portion of our own State. The triangulation has been carried through the eastern central part of the State, covering an area of 3,000 square miles between the Hudson river and the sources of the Mohawk, as far west as Utica, and embracing parts of eleven counties. During the coming season the triangulation will be carried across the entire State. The work is of the highest order of accuracy, every important point being located with absolute precision. Thus far the survey has not found a single town where it was represented to be on the old maps, many of them being a mile out of the way.

In Central America the reconnoissance of Lieutenant Wyse of the French navy has exploded the reports which the French have held to (in spite of the abundant testimony of American explorers to the contrary) that a ship canal without locks was possible across the Isthmus of Darien. His conclusion is that no navigable channel is possible between Tuyra and the Otrato without locks or tunneling. The researches of Dr. Le Plongeon among the ruins of Chichen Itza, Uxmal, and Aké in Yucatan, and on the once famous islands of Azumel and Mujeres, are mentioned with commendation: and the doctor's claims to the discovery of written and other evidence of communication between the people of Yucatan and the ancient people of the west coast of Africa are favorably noticed.

No real work was done in Arctic regions; considerable attention, however, is given to Barry's reports with regard to the finding of relics of Sir John Franklin's ill-fated expediwould construe the term 'successful use' so as to mean tion, near the Gulf of Boothia, north of Hudson's Bay. Sir Leopold McClintock has intimated to the British Admiralty that Barry's story is not worth much; Justice Daly, on the other hand, is convinced that Barry not only means to tell the truth, but has a sufficient acquaintance with Esquimaux speech to make his report of Esquimaux stories trustworthy. He believes, further, that the information Barry gives is sufficient to justify the sending of an expedition to examine the spot where the Netchelli say the white men died, and where their cairn is containing books and papers.

Stanley's conquest of the Congo is next reviewed at great length, and his course in fighting his way, when opposed, is unreservedly justified. Summing up the whole of Stanley's work in Africa, the speaker said, "It may truthfully be said that no man has ever, in explorations upon the land,

Sandalwood, --Laving down Raspberries,--New Genus of Lumbriculidæ. -Solders.-Etching Fluid.

III. ELECTRICITY, LIGHT, HEAT, ETC.-On the Law of the Absorption of Radiations across Bodies, and of its Application in Quantitative Spectrum Analysis. By M. G. Gevi.—Electrical and Telegraphic Notes. New Electrical Law. Telephone-iana.—Chloride of Silver Cell, 1 illustration -Measurement of the Resistance of a Battery, 1 illustra tion .- Gun-Cotton Spectrum .- Influence of Light on Metals .- The Speaking Phonograph.

IV. MEDICINE AND HYGIENE .- Medical Notes in Siam, China, and Japan. By C. W. VROOMAN, M.D., Brooklyn, N. Y. Read before the Kings County, N. Y., Medical Society. Extirpation of the Larynx. By DAVID FOULIS, M.D. An instruct-

ive account of the substitution of an artificial for the natural Larynx, and the patient's success in articulation, 3 illustrations.-Distended Bladder.-University College Hospital, London

V. CHESS RECORD.-Biographical Sketch of P. T. Duffy, of London with Portrait.-The Lincolnshire Chess Association.-Two Problems by J. Berger.-Scotch Gambit, Lincoln County Chess Association Normey, -Chess in New York, -Match Game between Thorold and Miss M. Rudge.-The Contrast.-Solutions to Problems.

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vention becomes just the thing. The "improved" device a long and detailed account thereof.

is put upon the roads, and the companies reap their reward. A couple of bankrupt adventurers who had failed disas-Meantime the real inventor is out in the cold. He may trously in one of the real estate schemes common in the

ESTABLISHED 1845.