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AMENDMENT TO THE PATENT LAWS.—IMPORTANT TO PATENTEES.

The editorial letter from Washington published in our last number refers to an amendment now pending before Congress, designed to relieve a very large number of inventors who have failed to pay the balance of the patent fee—twenty dollars—within the six months as provided by law, thereby forfeiting their rights.

The language of the act of March 3, 1863, which requires payment of the balance fee within the six months after date of allowance, is peculiar. It provides that in default of said payment the invention shall become *public property as against the applicant*. The public acquire no rights in the invention as against another and subsequent inventor, leaving the original and first applicant only to suffer the consequences of not having paid the second fee within the time specified.

The rule of the Patent Office treats all such lapsed patents as judicially dead upon the record, and examiners are not allowed to refer to them under any circumstances, even though an application be made by another inventor for the same thing. Though this rule may be correct as based upon the language of the law of March 3, 1863, it nevertheless contravenes the plain intention of the statute of 1836, which requires that patents can issue only to the original and first inventor of the art, machine, composition or improvement. The same statute provides that whenever, in the Commissioner's opinion, two pending applications are adjudged to interfere with each other, that officer shall declare an interference, and require testimony with a view to determine the question of priority as between the applicants.

The amendment of 1863, however, conflicts with the law of 1836, inasmuch as it shuts off from this interference the unfortunate first applicant who has not paid up within the six months. Many might hastily jump at the conclusion that it would be serving an inventor right who thus failed to comply with the inexorable demands of the law; but we think no unprejudiced mind will thus reason, when a fair statement of the case is presented.

If an inventor wilfully neglect his duty as prescribed by the law, he is entitled to no sympathy, and ought not to ask for it; but the records of the Patent Office show most conclusively that there are hundreds of cases in which the applicant could not

comply with the law. Many inventors justly plead inability to make the payment in time; some are entirely ignorant of the law on the subject, and for want of such information do not pay up in time; but it bears with peculiar hardship upon persons residing in foreign countries and upon those who are engaged in the military and naval service of the country. Inventors of this class are subject to all the changes and vicissitudes of the service, and are rarely ever stationed for a long time in one position.

There are many very aggravating cases, involving the interests of our brave soldiers, which appeal with great force for such relief as will be afforded to them by the bill now pending before Congress.

The act in question provides that an applicant whose patent has elapsed under the operation of the law of March 3, 1863, shall have a right to renew his application within two years after date of allowance, upon the payment of fifteen dollars, and to use the papers and model originally presented to the Patent Office. This we regard as a fair and equitable treatment of all such cases, and we trust that it will meet the approbation of Congress.

The bill has been carefully considered in all its bearings, and has received the unqualified sanction of the Hon. Commissioner of Patents. It now only awaits the action of Congress to become a law of relief. It is vastly important, however, that it should pass at this session in order to allow all such cases to be included within its provisions. If it be put over till the next Congress the term of two years, as provided in the bill for the renewal of applications, will have expired before favorable action can be had.

Inventors who are suffering under the operation of this law of limitation ought to write to their members of Congress to look after the bill, and not allow it to slumber for want of attention.

ARE BANK DEPOSITS CURRENCY?

Hunt's Merchants' Magazine, under its new management, exhibits a mastery of economic science which gives remarkable interest and force to its discussion of financial questions. In the last number is an article on The National Finances, by Hon. Amasa Walker, the several positions of which seem to us sound, with one exception. This is embraced in the sentence, "The bank currency of the nation, at the present time, reckoning the circulation at \$250,000,000, and the deposits at \$450,000,000, is \$700,000,000."

The currency or money of this country at the present time is of two kinds. In the States lying on the Pacific it consists of flat disks of two metals, gold and silver. In the remainder of the country it is a mixture of metallic disks and notes, the metal being an alloy of copper and nickel, and the notes being partly those of the United States Government, and partly those of certain joint stock companies or associations of individuals, called banks. The managers of these companies have succeeded in so establishing their credit, that their notes are received by people in exchange for the most valuable property, and have finally come into use as money. This same credit induces people who have money on hand which they do not intend to use immediately, to leave it with some bank for safe-keeping. If the banks kept these deposits on hand in the form of money, it would be a portion of the currency of the country; but this is not the case.

Deposits are usually made with banks in the first instance in the form of notes. One trader sells to another \$1,000 worth of merchandise on six months credit, the purchaser giving his note for the amount. The seller sends his note to the bank for discount; the interest is deducted, and the remainder is carried to the trader's credit as a deposit.

If the trader now buys goods for cash, he draws his check for the amount; the seller of these goods sends the check to his bank, where it is entered to his credit as a deposit, and after its passage through the clearing house it is charged to the drawer, diminishing his deposits to the same extent. This is the ordinary course of business.

It will be seen that bank deposits are simply ledger balances, being the records of the transfer and ownership of merchandise. There is no more propriety in calling them currency, than there is in calling a barrel of pork, currency.

If a bank has on hand any notes of other banks, those notes are money, or currency. But they are part of the circulation, and are included in the \$250,000,000.

CORN HUSK FOR PAPER STOCK.

We are informed that the process for making paper from corn husks, of which so much has been said in the SCIENTIFIC AMERICAN, is about to be tried here on an extensive scale in a short time. If successful, printing paper especially is to be largely manufactured.

Corn husks have doubtless been fed out to cattle universally this winter, but expensive as hay is it is questionable economy to do so now when there is a prospect of obtaining a high price for the husks before spring. We therefore suggest that our agricultural readers carefully husband their stock of this staple, for a time at least, as the demand for it is likely to make it much more valuable than it is in the shape of cattle feed.

We sincerely hope and believe that the preliminary trials with corn husks for paper stock will prove to be what it has been represented, and further, that energetic measures will be taken to put the manufacture in market, for newspaper publishers have no heavier tax in their business than the price of printing paper.

It is stated that proprietors of the leading papers in this city have secured the right to make paper from this substance, and farmers are requested to address D. A. Craig, General Agent of the Associated Press, New York City, in reference to any quantity of corn husks they may have to dispose of.

HOT BEARINGS.

Detention and delay of steam vessels by hot bearings is not an uncommon occurrence. We read in reports of trial trips "the ship was delayed some hours by hot bearings." These few words convey no idea to the uninitiated, of the engineer's anxiety, the impatience of the captain and sailing officers on such occasions. There are some screw steamers out of this port which have an inch and a half stream of water constantly running on the main shaft-bearing. Such nastiness as this creates is beyond expression. Those who go below in the performance of their duties are agreeably (!) surprised by warm jets of greasy spray, and besmeared from head to foot. The bilge pumps are forever going, or the bilge injection is kept wide open to free the ship from the water. No lubrication takes place, for the oil is washed out as fast as it is poured in, and the main bearing has little more oil than the stern bearing, which runs under water.

Aside from faults of design which are often the sole cause, there are others which relate to mere manipulation or adjustment which may be here alluded to. Bearings often heat from being what is technically called "collar bound," or so tight side-wise that there is no motion.

Paddle wheel steamers rolling in a sea-way invariably heat and cut at the collars when the brasses are tighter at the point designated. When cutting once begins the fine metal abraded gets in and tears up the whole surface, rendering it hot in a short time. Badly fitted boxes also heat quickly. There will always be one part of the bearing where the chief work is done. A horizontal engine bearing wears chiefly at the sides, and chocks are provided for the purpose of taking the brasses up at these points. Vertical engine bearings wear at the bottom and top, and the labor is always in the direction of the stroke of the piston. Thus the brasses and bearings are continually wearing oval, or out of rotundity, and have to be chipped off to bring them down. When heating is not caused by defective adjustment, and is simply a fault of design, it is often of advantage to "doctor" the lubricant, and for this purpose black-lead and oil are useful. Sulphur and oil are also employed, and many engineers advocate the use of soapstone finely pulverized. Blacklead and tallow is also used for heavy bearings. All of these mixtures are nasty, and are chiefly valuable for their heavy body. Sulphur possesses no refrigerating power on a hot shaft, whatever it may do to the human body. Blacklead has a certain smoothness which is valuable, and there is virtue in tallow. There is still an-