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Boot and Shoe Pegging Machine

The accompanying engraving is a perspective view of a machine for pegging boots and shoes, for which a patent was granted to John Standish, of Cuyahoga Falls, Ohio, on the 14th of last February, one equal half of the patent being assigned to Horace A. Miller of the same place.

This is a very ingenious machine,—it places every two pegs exactly the same distance apart; and every one is driven in with equal force; it can place two or more rows of pegs in both sides at one operation; in all its details it seems to be complete; a few pegs at the toe and heel are put in each shoe by hand, as the machine does not turn round the shoe.

a' is a shoe placed in the case, a, and is represented as being pegged; h is a clamp, which secures the shoe firmly in its case. The shoe frame is a peculiar one; its motion is made to conform to that of the sole of the shoe, and it is moved forward with an intermittent progressive flexible motion, to bring the shoe correctly under the pegging awls and drivers, two sides being pegged at once, thus embracing two machines, as it were, in one. The shoecase, a, has an axis pin, which works up and down in a slot, in each side standard, b b. g g are curved arms of the shoe frame, and are attached at the middle to the notched lever, f_1 , which holds, by the pawl, h', the said frame steady in front, as the shoe is moved forward. e is a rack bar secured to the back end of the shoe frame; this bar, as it is moved forward, feeds the shoe to the awls and pegging hammers. It is moved by a pinion (not seen) on the center of the cross shaft of lever e'. This pinion has an intermittent progressive cam or irregular motion forwards. This is given by the two otched feeding wheels. The weight, q, has a belt (by a mistake the belt has been placed round the pulley in the wrong direction), which passes round a pulley on the cross shaft, and were this shaft not held by pallet", r r, which take alternately into the notches of the wheels, q', the weight would run the bar, e, rapidly forward; but the pallets, r r, are operated by two pins in the face of a small wheel, which is revolved by a pinion. The pawls, rr, are attached to rods, the shoulders of which rest on the pins named, so that as the wheel revolves, each pin, alternately, lifts the arm of the ratchet, to raise the latter from a notch of



the wheel, q', and allow the rack, e, to be roller on each standard, b, rolls, and as the shaft. The awl and peg-drivers are attached to the back end of the beam, l"; therefore, moved forward. The wheels, q', have their standards are fed forward, the shoe frame is to an arm on each side, which is secured to as the crank revolves, the strap rises and teeth so cut, as to move forward the rack bar, raised on them by the said fixed curved the front end of the beam, l", between the two falls, and this gives the beam, l", a vibratory e, in such a manner as to suit the inequalities rail. Another curved slot, i", made in the rail, coiled springs, ll'. The cam which lifts the motion, forcing the awl and peg driver shanks of curve in the sole of the shoe, otherwise the |i|, guides the front end of the shoe frame, by hammers, j, does so by pins lifting up and com- down on the sole by the one motion, and raispegs would not be regularly placed apart .-pressing the springs, ll', so that whenever the ing them up by the other. The triple plate a pin on each side of the frame, running in They are therefore laid out by rule and cut of cam frees the lifting arm, the coiled springs, l springs, l'' l''' on the top of the beam, l'', ren. each slot. This curvature of the rail and slot such lengths as to feed forward the shoe so l' rebound and drive the peg and hammers ders the latter somewhat flexible. so as to alis made to raise the shoe to the exact and promuch every stroke as to suit the cycloid.1 per distance under the awl and peg-driver, and down on the drivers, m m, with great force; low the connecting arms of the awl and peg gives the shoe the proper angle to receive and curves of the shoe sole. It will be observ-(one of these drivers may be called the awl drivers, to be driven further down by the acshank.) For light work these coiled springs tion of the hammers. The peg driver rises a ed that the top shaft gives the machine drive in each peg. All these devices are thereall its separate motions. The lever, e', is only may be removed, as the peg and awl drivers little above the awl shank (although both are fore very correct and skillfully arranged. used to run back the shoe after it has been The awls and peg drivers are driven down by are lifted up and forced down on the sole of connected to the one arm) by a sliding pin, to the shoe by the beam, l", which oscillates on a allow a peg to be moved forward and under it. pegged; b b are the standard supports of the double hammers, j—a pair on each side shoe frame; they have slots, b' b', in their and these are lifted up and let fall by their own center pin, like a walking beam. It is vibrated The awl, when it is struck into the shoe, lower parts, to allow the shoe to rise and fall; gravity on the heads of the awl and peg-drivers by a crank on the back end of the top shaft, could not be easily raised by the beam, l", but d d' d' is a fixed curved guide rail, on which a by a cam (not shown) on the top longitudinal which is secured by a changeable strap or arm, a plate spring under a notch of the awl-shank,

338

Scientific American.

and then when the stroke is given, the recoil ner be appointed. The first assistant examin- panying applications for designs. He is furth- two dollars. of this spring acts upon the awl and enables it ers shall be rated as of the second class of er authorized to dispense in future with modto rise with great ease.

0 0 are two straps hung on the outside of the main frame, and sustain the small frame which feeds in the pegs to the shoe. A thin slip of wood is placed in a narrow groove, and is fed into a knife by a small coiled spring, d, which moves forward the bed of the strip of wood. The knife which cuts the peg is driven down by a shoulder on the shank of the pegawl. This peg-feeder is regulated, in and out, by a nut, n, to put in pegs to any number of rows. When the peg is cut, the knife which i to be refunded, for which order he shall place cuts it is lifted up by a spring, n''.

The peg-feeding devices accommodate them selves on an axis to the inequalities of the sole of the shoe, and insert the pegs into each hole. after the awl has punched it, in a very complete manner. This machine embraces a great number of motions, and is somewhat complex, but it is very ingeniously constructed and very perfect and complete in all its actions.

The inventor, Mr. Standish, is at present in this city with a large working machine, from which the above engraving is taken. He is about proceeding to Massachusetts with it, to exhibit it to the great boot and shoe manufacturers there, and for it we bespeak a careful examination by all who are interested in such work. Those who desire more information by letter can obtain the same by addressing the or any foreign country prior to the invention patentees-Standish & Miller-at their place of residence, named above, in Ohio, or No. 195 Broadway, Office of C. R. Miller, where the machine can now be seen.

New Patent Hill.

The following is the new bill for re-modeling the patent laws, to which we referred last week. It was introduced on the 20th ult., by Senator James, from the Committee on Patents:

A BILL TO AMEND THE SEVERAL ACTS NOW IN FORCE RELATING TO THE PATENT OFFICE.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioner of Patents may establish rules for the taking any affidavits or depositions which may be required in cases pending in the Patent Office, and may prescribe the officers before whom such affidavits or depositions shall be taken, which he may do either by general regulations or special orders. Such officers or persons shall have power to issue subpœnas to compel the attendance of witnesses, which may be sent to any distance not exceeding fifty miles from the place where the witness is required te attend. They shall also be vested with power to administer oaths, to issue attachments, and punish for contempts so far as the same shall be necessary to compel the attendance of witnesses, or to preserve order while taking their depositions. And whenever a witness, from whom an ex parte affidavit is desired, shall refuse or fail to give full testimony on all points suggested to him, interroged to writing, and used in place of an affidavit. and if any person in making an affidavit or ly swear falsely, he shall be deemed guilty of

court shall be satisfied that any person who is SEC. 2. And be it further enacted, That the term of twenty years from the date of isdollars. a plaintiff in such proceeding in acting in col-For each additional claim, five dollars. when any judge, before whom an appeal from sue of the original letters patent: And prolusion with any person interested in the letters the decision of the commissioner is now or vided further, That no patent shall be extend-On appeal from assistant commissioner to patent, the court may in its decree order that shall hereafter be pending, shall for any cause ed for a second term. commissioner, ten dollars. the cause be dismissed, without prejudice to And when the number of words in any patmine the same with SEC. 9. And be it further enacted. That a the right of any other person to file a subsereasonable promptness, the Commissioner of patent shall not be subject to a writ of attachent shall exceed one thousand, then shall be quent bill to repeal the same letters patent. Patents may require the appellant to select one ment or any process of law issued on judgment paid (in addition to the regular fees above SEC. 18. And be it further enacted, That the rendered for debt, but shall inure to the benof the other judges to whom the case shall be prescribed) the sum of twenty-five cents for mode of serving the defendant with process transferred, and if within a reasonable time, to efit solely of the patentee, his heirs and assigns. each hundred words. may also be fixed by the court, and if the de-Nothing contained in this section shall be conbe fixed by the commissioner, such selection is On application for a design or re-issue of a fendant cannot with proper diligence be found patent, fifteen dollars. not made, the appealshall be dismissed. strued to avoid or annul process of law as in the United States, the notice published by SEC. 3. And it be further enacted, That in On every appeal from the commissioner. against the products of an invention, a mathe Commissioner of Patents, as aforesaid, addition to the force now employed in the Patchine constructed under a patent, or the avails twenty-five dollars. shall be deemed a sufficient service; and if the On filing each disclaimer, ten dollars. ent Office, there shall be appointed four prinof a patented invention. defendant, when served with process in either cipal examiners and four assistant examiners, SEC. 10. And be it further enacted, That the For copying, per hundred words, twelve and of the modes above contemplated, shall fail to one-half cents. whose mode of appointment, compensation, Commissioner of Patents is authorized to resappear, default may be entered against him, For recording every assignment, agreement, and duties shall be as provided forother officers tore to the respective applicants, or otherwise and a decree rendered accordingly. The parof the same respective grades; and should the dispose of such of the models belonging to power of attorney, &c., of three hundred words ty filing the bill shall be liable, in the first inbusiness of the office require a still further inrejected applications, as he shall think unor under, one dollar. stance, for all the costs of suit, but these may crease of force, a number of second assistant necessary to be preserved. The same author-For recording every assignment, &c., over

clerks, and the second assistant examiners, ma-

chinist, and librarian, as of the third class.

SEC. 4. And it be further enacted, That all laws for the withdrawal of money deposited after the passage of this act, on the failure of an application, are hereby repealed; but when money has been paid into the office by mistake, or when for any other reason money shall have found its way into the office, which in justice and equity ought not to be retained, it shall be the duty of the commissioner to cause the same his reasons on record.

SEC. 5. And it be further enacted, That the right to file a caveat, or to apply for any patent, design, or re-issue, shall be enjoyed equally by citizens and aliens; and the fee required of aliens shall be the same as required of citizens of the United States. The law requiring applications for additional improvements is hereby repealed.

SEC. 6. And be it further enacted, That instead of the oath heretofore required of the applicant for a patent or design, he shall only be required to swear or affirm that what he has described and claimed in his specification has not been invented or discovered by any other person in this country, or been patented or described in any printed publication in this or discovery by himself, (or "prior to the date of his application," if he chooses to state it in that manner.) As against an applicant who fails to make oath that he verily believes himself the original or first inventor of that for which he sells a patent, the foreign inventor shall be allowed to show priority of invention, and to obtain a patent accordingly : Provided he shall make application within one year from this date, or within one year from the date of his invention. This provision is not intended to take away any of the rights heretofore enjoyed by foreign inventors.

SEC. 7. And it be further enacted, That when an interference has been decided in favor of one of the parties thereto, a patent shall be granted accordingly, (unless the successful party shall have a patent previous to the interference,) and the filing of a new aplication, subsequently to the day of hearing, on the interference shall not prevent the patent from being granted.

SEC. 8. And be it further enacted, That from and after the passage of this act, every patent shall be granted for five years. Upon the application of any patentee or assignee of a patent for the extension of a patent so granted, within six months previous to its expiration, and upon payment of one hundred dollars to the credit of the patent fund, the Commissioner of Patents shall extend such patent for the term of fifteen years, which extended term shall be subject however to the conditions and restrictions for the confirmation of such

perjury, and be punishable accordingly. such patents may be extended shall not exceed On issuing each patent with one claim, ten

is forced down by the stroke of the hammer, examiners, not exceeding ten, may in like man- ity is also given in relation to all models accom- three hundred and under one thousand words,

els of designs where the design can be sufficiently represented by a drawing. He may also substitute smaller models for any that may be pense of making the same. in the office which are larger than can be rethe office.

the Patent Office is hereby removed, and the tion of the act approved the third of March, eighteen hundred and thirty-seven, as authorizes the transportation of models to the Patent Office to be chargeable to the patent fund. is hereby repealed. The Commissioner of Patents is hereby authorized to employ his chief clerk to frank such letters and documents as are permitted by law.

SEC. 12. And beit further enacted, That the commissioner may require all papers filed in the Patent Office to be correctly, legibly, and briefly written; and for gross misconduct or willful violation of the rules of the office, he may refuse to recognise any person as a patent agent, either generally or in any particular case, but the reasons of the commissioner for such refusal shall be duly recorded. And the Commissioner of Patents is hereby authorized to admit such persons to practice as patent agents as he may deem qualified, and no person shall be permitted to act as agent for inventors who shall not have received such authority from the Commissioner of Patents.

SEC. 13. And be it further enacted. That from and after the passage of this act, the right of appeal to the chief justice, or to eith er of the associate justices of the circuit court, shall cease, except as to cases which then have been finally acted upon by the Commissioner of Patents, and to which the right of such an appeal shall then be complete.

There shall be appointed, in the same manner as is now provided for the appointment of commissioner, an Assistant Commissioner of Patents, with a salary of-dollars per annum, payable out of the patent fund; who in all cases during the necessary absence of the commissioner, or when the said principal office shall become vacant, shall have the charge and custody of the seal, and of the records, books, papers, machines, models, and all other things belonging to the said office, and shall perform the duties of commissioner during such vacancy; and whose duty it shall be to entertain appeals from the final action of the examiners in the manner which shall be prescribed by the commissioner. And from his decision an appeal may be taken to the commissioner in person upon the payment of the sum prescribed in the thirteenth section of this act.

SEC. 14. And be it further enacted, That so much of the laws now in force as fix the rates of the Patent Office fees are hereby repealed,

For each additional claim, ten dollars.

For recording every assignment, if over one thousand words, three dollars.

For copies of drawings, the reasonable ex-

SEC. 15. And be it further enacted, That tained with due regard to the convenience of upon filing a proper petition and the payment of one hundred dollars by any patentee or as-SEC. 11. And be it further enacted, That the signee of a patent, after such patent shall have limit now fixed to the number of collectors been extended as provided in the eighth secwho may be authorized to forward models to | tion of this act, the Commissioner of Patents shall cause notices to be published in like mancommissioner may appoint as many as he may | ner as heretofore required in cases of applicafind expedient, and so much of the tenth sec- | tions for extensions of patents. Every notice of this kind shall state that application has been made by the petitioner to have his patent confirmed, and shall notify all persons opposed to such confirmation that they may appear by a certain day therein fixed and make objection thereto. Such objection may be made in like manner as heretofore prescribed in cases of applications for extensions, and testimony may be taken as heretofore taken in cases of extension. If no sufficient objection is made the patent shall be confirmed, and a certificate of such confirmation shall be endorsed thereon; and after such confirmation the patent shall not be liable to be called **into** question, except by a direct proceeding as hereinafter provided. In prosecutions for infringement after such confirmation the defendant shall not be permitted to show in defence that the patent was invalid. But in cases where justice and equity require delay of such prosecution until a suit to set aside a patent can be determined, the court before which the prosecution for infringement shall be pending shall have power to grant a stay of proceedings for that purpose.

SEC. 16. And be it further enacted, That within one yrea from the date of such confirmation a direct proceeding may be instituted to set aside the patent in the manner hereinafter provided; after the end of which time the patent shall only be liable to attack for fraud, or for other causes which would enable a court of equity to set aside the judgment or decree of a court of law or equity. And after the end of three years from the discovery of any fraud, or from the existence of any other defect, such defect is cured.

SEC. 17. And be it further enacted, That within one year from the date of the confirmation of any patent as above contemplated, or at any time during the life of any other patent not so confirmed, any person may file a bill in equity in any of the district courts of the United States where the patentee or his assignee resides, to annul such patent. The plaintiff in such suit shall notify the Commissioner of Patents of the commencement of such suit, and shall pay into the Patent Office the sum of fifty dollars, and thereupon the commissioner shall cause notice to be published in like manner as heretofore prescribed in cases of applications for extension of patents.

Any person may make himself a party to patent, and the proceedings for annulling such such suit as plaintiff by notifying the clerk of patent hereinafter provided in this act. And and in their stead the following rates are estabatories may be propounded to him, which, tothe court of that fact, after which he shall be gether with the answers thereto, may be reducall patentees and assignees of patents which lished: entitled to be treated as a party in all respects. On filing each caveat, ten dollars. are now in force may, after the lapse of five The court may make rules for taking deposi-On filing each specification with one claim, years from the date of the issue of the letters tions as well as in regard to all other points of deposition, as above contemplated, shall willfulpatent, avail themselves of the provisions of twenty dollars. practice and procedure not otherwise regulated this act: Provided, That the term for which by law; and if upon the trial of the cause the