390

One of the co-editors and proprietors of the SCIENTIFIC AMERICAN, Mr. S. H. Wales, is now, and for some time past has been in Europe, as Commissioner to the French Exhibition. At the request of an eminent engineer in Paris, he has written a few articles for l'Invention, a scientific journal published in Paris, in which he discusses and contrasts the American and French patent systems with considerable effect. The French inventors are laboring for a reform in their patent laws, which are too indiscriminate to fully meet the ends for which they are intended. Mr. Wales has been much complimented for the helping hand he has lent. We annex a translation of one of his articles. which touches on several points of interest and importance to American inventors :-

THE PRELIMINARY EXAMINATION.-In the June number of the Invention, I discussed in a summary manner the patent system of the United States, and endeavored to throw light on the utility of preliminary examination previous to the issue of letters patent. I intimated my preference for this system over any other now practiced, because the ultimate advantages to the patentee are, in my opinion, more likely to be secured and his rights protected by it. I also intimated that the system was not free from well grounded objection. The experience of twenty years, under the amended law of 1836, has revealed some objections to it which are gravely important and should not be passed over; but before mentioning some of them, it will be pertinent to the subject to state as a strong argument in support of a preliminary examination of all inventions for which patents are solicited, that this species of property has hitherto borne a commercial value in'the United States equal in importance to other species of property; I could enumerate a great number of cases where patentees have suddenly risen from obscure poverty to an easy independence. I now refer to useful improvements. In the United States, as in all other countries, patents almost without number have been secured for useless vagaries in mechanics, and if their respective patentees have not been remunerated for them, the fault is not due to a defective system in the granting of the patent, but in the invention itself. If an inventor toils day after day in search of a perpetual motion or for some method of descending the Norwegian maelstrom, and afterwards finds no reward for this patient industry, it is no argument against a system that requires novelty as its first requisite to the issue of a patent for the invention; although under the rules of the Washington office, examiners are expected to withhold the patent, unless tolerable evidences of utility are suggested in the invention. In France, if I rightly apprehend the true state of the case, an inventor seldom finds a bona fide purchaser for his improvement, he is compelled usually to license out his patent to such parties as he may be able to find, who will undertake the sale of the article or machine, and in to the public interest. The interests of each all such cases he is liable to the chances of an uncertain market and to the risk of broken integrity on the part of the licensee. He must also be able to establish the manufacture of the patented article by his own means so as to protect the licensee from the possibility of losing by an initiatory investment of money to carry it into practice.

An inventor is usually possessed of limited means and finds it out of his powerto establish such manufacture, and is discouraged by the bleak prospect before him, from spending his time on improvements that overreach his financial ability to manage. In the United States a common thing for the p atentee to sell his entire or partial right for a handsome sum of money, and is then free to carry forward any other improvements that he may discover. The system of a rigid preliminary examination of an invention inspires confidence in the legal calls for the invention of a fan moved by clockvalue of the patent, and hence capitalists are work, and made portable, so as to be set upon more willing to embark their means in its purchase. Whoever will take the care to examine the weekly list of patents as they are officially published in the columns of the Sci-ENTIFIC AMERICAN, will be surprised to notice the activity that prevails among inventors in the United States. The foundation of this activity rests upon a good prospect of commercial success, otherwise it would not, it

9-3

patents, even with its defects, is the most per- and has been re-invented, by different persons, 491 degrees to exert a pressure of 15 lbs. on fect yet devised. The French are unquestiona- several times a year ever since; but we never the square inch; to use less air will require a bly an ingenious people, but their genius is knew of any one who found it profitable. It higher degree of heat, and to lower the temperpassive, and not active, simply because they has been presented to us as many as six times ature will reduce the pressure. In its very nahave little encouragement to ask for the patent since May last, for our opinion as to its novel- ture steam has many advantages over hot air, seal of the Government with no reasonable ty,-each time by a different inventor. safe-guard from litigation. Even with the letters patent in hand, they feel like one making his way in a dark and strange avenue, not knowing how soon he may stumble upon some foul breaker. Every species of manufacturing industry in France needs skillful improvement. The necessities of the times are demanding change. The agriculture of France is also suffering for improved implements to relieve the husbandman of his oppressive labors, and to enable him to make greater returns for his oftentimes misapplied industry. This result will not be gained until the Gov- frozen up, costs but little to keep in repair, and ernment seeks to foster more carefully the if made of galvanized iron, corrosive liquids or rights and guarantees made to inventors.

Under the present advanced condition of universal application .-- [Charleston Mercury. nechanical science, as it is developed in the three greatest producing countries of the world, France, England, and the United States, I readily conceive that an unlimited system of preliminary examinations could not be carried into effect. It would be sufficient for the French Government to confine itself to its own inventors without attempting to search the dusty records of foreign countries to see what has been before done in the same field. This latter would be an impossible, nav a fruitless labor; but with a faithful board of examiners aided by the noble works upon science that have been so honorable to the nation, a complete and beautiful system could be established that would start into life the slumbering genius of French inventors, and I am sure that the result within the next ten years would more than realize the hopes I have expressed in favor of the improved system.

One of the original defects in the system at present in vogue in the United States is the laborious necessity imposed upon examiners to search the published records of foreign countries. This is attended with great trouble, and is, after all, uncertain in its results, because it is out of reason to suppose that every publication of a scientific character will make its way the means of thus generating electricity will steam whistle for the bell in signalizing. into the library of the Patent Office.

Efforts are now being made to confine the range of examination within the United States, and at the same time freely open to foreign inventors the privilege of taking patents under the same regulations as shall be prescribed for citizens. The argument is :- The original inventor that offers a good invention for protection should be entitled to receive letters patent don Mining Journal. for it, if the invention has never before been known or practiced in the United States. With the necessary details for carrying it into effect the system would be admirable, and while the interests of inventors would be thereby greatly promoted, a corresponding result would accrue are inseparable, and no legislation should suffer the claims of inventors to override the claims of the public

I have thus briefly set forth the benefits, as I conceive them, of preliminary examination before the issue of letters patent for an invention, France, having inaugurated a splendid exhibition of ingenuity, will not permit the occasion to pass without a more extended appreciation of the genius of its inventors by the establishment of a patent code that shall at once invite them to greater activity.

I feel confident that if France would take the initiative in this matter, other continental European countries would speedily follow.

The American and French Patent Systems Con. that the United States system of granting Commodore Barron some twenty years ago, every stroke, and this has to be heated up to

Scientific American.

piston, greatly simplifying the construction, is we believe that Capt. Ericsson would do more much talked of among French mechanicians. good to himself and the world if he would It is the invention of Monsieur de Malbeck.-The tube instead of being fixed, after the old steam engine. plan, is made to work up and down, the lower end plunging into the water. At each plunge the water rises higher in the tube, the return of air from above being prevented by a valve, till at last a copious and steady stream is discharged by the spout. The pump is but little subject to derangement, is not liable to be acids would not affect it. It is, moreover, of

[This pump is the same exactly as that illustrated in 1849, Vol. 4, SCIENTIFIC AMER-ICAN, the invention of Nehemiah Dodge, of this city.

VOLTAIC ELECTRICITY-Dr. Tyndall has just soncluded a course of lectures at the Royal Institution, on voltaic electricity. In reviewing the progress and present condition of the science, he brought before his audience the recent discoveries, and stated the opinions of the most distinguished electricians, pointing out at the same time an immeasurable field that still lies open for investigation. He did little more than briefly notice the applications of electric force to the purposes of moving machinery, of illumination, of working in metals, and of transmitting intelligence. So far, indeed, as the probable substitution of electricity as a moving power instead of steam, it was shown that the only obstacle is the cost of the means yet known of exciting the electric force, and when it is considered that the chemical actions during the combustion of a candle are sufficient to generate more of this force than the most powerful voltaic batteries, if those actions could only be developed in the form of a voltaic current, there seems good reason to suppose that ere long be discovered, and that there will then be supplied an almost illimitable source of power, applicable in numerous other ways than in mechanical action. It is, perhaps, in this direction that we must look for the accomplishment of marvels during the remainder of the nineteenth century, equal to those that have been effected since its commencement.-[Lon-

Ericson and Hot Air.

In our list of patent claims last week, it will be perceived that another patent has been granted to Capt. Ericsson for improvements on hot air engines. This corroborates the reports which have been in circulation for some time in this city, regarding new modifications of the very air engines which had been pronounced perfectly successful, "the greatest triumphs of modern genjus," &c. The two claims of the new patent do not embrace any new discovery in science relative to hot air, nor do they reand in parting with the subject, I dare express | late to the heating furnaces (which were failthe hope that the enlightened Government of ures in the old engine,) nor to any new method of obviating the difficulties of leakage, but sim-| ply to new modifications and arrangements of parts; these embrace the working of two pistons in one cylinder, and a method of working the pistons of the working cylinders by two sets of vibratory arms. We really regret to plow, took place at the exhibition of the Royal an inventor like Capt. Ericsso throwin away his talents, science, skill, time, and toil A steam cultivator was entered by Mr. Usher, upon such a chimera as the hot air engine.- but unhappily failed, by a short span, to reach Independent of the greater complexity of its the ground. While traveling on the road it parts, in comparison with the steam engine, the mired in a soft spot and was not easily exmotive element—hot air—as a substitute for | tricated. It is described as being complicated steam, never can be so used with success. The and clumsy of locomotion. A few experiments great bulk of fresh air which has to be fed in to were made with it in plowing, but it seems to an air engine at every stroke, is an objection to ' have been regarded as an invention more inits use which cannot be overcome by any ar- genious than useful. Notwithstanding this rangement of machinery, and is sufficient of failure, we are strong in the faith that steam itself to taboo it. To say, as some have done, will yet be successfully introduced on the and as was reported of Capt. Ericsson's late | plowing field. Steam engines are coming into engine, that compressed air would remove every | very common use in England, among the fardifficulty, is neither more nor less than to make mers. They use them for driving thrashing a statement destitute of truth. It requires the machinery, cutting fodder, raising water and a could not exist, and I argue from this point taken. This same invention was patented by working cylinder to be filled with fresh air at variety of other purposes.

and as we believe there is great room for im-NEWLY INVENTED PUMP-A pump without a provement in the saving of fuel in boilers, &c. quit hot air at once, and devote himself to the

Steamboats on the South and Western Waters. The New Steamboat Law.

A very interesting report has been published in the Cincinnati Gazette, relating to steamboat statistics for the first six months of this year, by W. W. Guthrie, local inspector at Cincinnati. The report relates to steamboats on the Southern and Western rivers only. The number running on them is estimated at 600. During six months named, twelve were destroyed by fire, seven damaged by ice, fifty-two sunk and damaged by snags, five damaged by explosion, and seven damaged by collisions.

The number damaged by snags is very large, and amounts to 50 per cent of the entire loss. Our people in the South and West should look to improving the navigation of their rivers, for the loss amounts to nearly two millions' worth of property annually. The following, from the Report, is high testimony in favor of the workings of the new steamboat law :

"It is worthy of remark that there has been no explosion or collapse of flue of any boiler manufactured since the passage of the law by Congress, of August 30th, 1852, and coming under the reduction of steam pressure. In every instance, the disasters have been from boilers made previous to the passage of that law; many of them have been brought under its provisions which allows a greater steam pressure, and is actually necessary to that class of boats constructed under a differentviewof proportion between boilers and cylinders. It is true a limit is fixed, but it is far above that of the new boiler."

It is also stated that collisions are becoming less frequent on account of substituting the

Wire Erick and Brickwork.

MESSRS. EDITORS :- To strengthen bricks so that they will stand a stronger crushing force, let several webs of wire of near their own size. be inserted at equal distances in the material, when they are molded, and then let them be baked as usual. When the bricks are laid up, let long webs of coarser wire, of near the width of the wall, be placed between each layer or between every two or three, &c., or so as to correspond with the pressure they have to sustain. As bricks are made narrow, perhaps the insertion of the webs between their layers in a wall would be sufficient; and thus dispense with their use in the bricks, which would be tedious to mold. In this way, by conforming wire webs to the articles to be manufactured, they can be greatly strengthened. They can be introduced into various articles of papier mache and pasteboard work, into glass ware, plaster work, into pottery and porcelain, and, in short, into a great many articles, to strengthen them, which are made of cast, molten, or plastic Yours, respectfully, materials.

H. STRAIT. Covington, Ky., July, 1855.

Steam Plow.

The last attempt to harness steam to the Society at Carlisle, Eng., Jul

Notes Relating to Science and Art. A CLOCK FAN-The Albany Knickerbocker a table, and about the size of a Yankee clock, and concludes as follows :

"Whoever takes out a patent for a successful invention of the sort may realize hundreds of thousands of dollars from it during the next summer. For throwing out the hint, the inventor can send us a sample. The sooner the better."

We think our cotemporary is somewhat mis-

Scientific American.

TO CORRESPONDENTS

A. H., of Ill.-Prof. Page has long since anticipated you in the construction of a tubular carrying telegraph. His electro-magnetic engine consi ts of a tube composed of wires, through which a piston is caused to travel with lightning velocity by the application of the galvanic bat-The tube may be made of indefinite length, so that a tubular telegraph for conveying small packages with tremendousspeed, might be constructed. The principal difficulty would be the enormous amount of battery power required, and the consequent expense of operating such a telegraph. The grand trouble with all electro-magnetic machines is the cost of working. What is wanted to give them success is a galvanic battery which will eat up less money than the steam engine. Whoever invents this vill have made the last great discovery of the age. Your idea of causing a ball to roll on a magnetic bar, placed in side of a non-conducting tube, with a battery inside of the ball, is impracticable; at least we do not conceive of any successful method by which you could make the ball tray. el, except on Page's plan. It must have required a grea deal of courage to attack the inventor you name. You will probably be welcome to all the laurels you win.-Look out that you do not find yourself going up "Salt River" in the next boat after him. It is sad to see broth er. disagree.

O. S. F., of N. Y .- Wheeled chairs for invalids are Quite common; there may be something patentable in your mode of attaching the small steering wheel, provided it effects a new and useful result, either in guiding the chair or cheapening the price.

S. C., of Va .- There is nothing patentable in the use of a piston valve as a safety valve, and we doubt much whether such a device would operate as well as the pup pet now used

C. M., of Mo .- We think F. H. Smith, of Baltimore Md., can supply you with such a brick machine as you desire. We would state here for the benefit of the makers of all good brick machines, that we have frequent in-quiries for such articles, and if some of them would insert a brief advertisement in our columns, we presume it would accommodate many, as well as prove advantageous to themselves

H. B. N., of Pa.-We cannot determine as to the cla on your gate unless you send a model.

G. S., of Pa.-The use of glass as an anti-friction ma terial in journal boxes and bearings, is quite old and not patentable.

D. C. H., of O .- Patents for improvements (not additional) on machines already patented run 14 years. They are independent of the original grant, so far as duration is concerned. No patents are issued in Canada except to British subjects.

J. M. C., of N. C.-The idea of operating switches by means of a cam or arm projecting from the engine and controlled by the engineer, is not new. There are many devices for the purpose, and among them the essential features of your plan. There is nothing patentable in your arrangement.

, of N. Y .--- There s nothing patentable in your Н. Т propeller. Perhaps a patent could be had on your cot

A. B. C., of .-It is a very common practice to send telegraphic messages and letters in cypher. There is nothing of patentable novelty in your idea, neither would there be in the detail.

E. S. L., of Va .- Your plan of making ice by elevating tanks of water into the aerial regions of perpetual snow and ice, by means of balloons, is certainly new and pat-entable. We doubt its economy, however; we think it is far cheaper to cut the ice out of mill ponds Your plan of making cannons possesses no advantages, and is not pat entable. \$2 received.

J. T. & Co .- Your model has arrived. Your improve ent in shingle machines strikes us as containing patentable features. It looks as if it was a valuable invention We will make your claims as broad as they will bear, and will do our best for you throughout. Send on the fee of \$30. \$1 received. You did not give your address or we should have written by mail.

G. L. W., of Md -Your letters on Spiritualism will re ceive attention beforelong.

R. M. S., of N. J.-Get a vertical cylindrical boiler for such a small engine; it requires only to evaporate half a cubic foot of water per hour and contain three cubic fiet. It should be of thiniron plate.

H. A. II. - We do not know of any book devoted to Christian names. Copyrightcosts \$1.

E. S., of Ga -Your device for feeding water into steam boilers was patented twenty-five years ago, and has been again invented by at least a score of men within four or five years past. We cannot tell why it has never come into general use, as several who have tried it say, as you

do, that it works well. D. A. W., of Vt.-We are not acquainted with a work that treats extensively on flouring mills. R. M. C., of Pa.-If A buys a patent right for a certain

county, B is liable if he uses or sells in any manner in that county, no matter where he got his machine. A is exclusive owner to the county be purchased.

W. J., of Mass.-One patent would not cover both in-ventions. There appears to us to be more originality in the last model than in the other. We do not see what

could prevent it operating. A. W., of N. Y.-If inventors will neglect to secure their improvements where they have the opportunity, they must put up with the consequences. We think you

are mistaken as to the horse power. S. N. C., of Ill.-\$15 will cover the cost of illustrating

your invention. G. H. B. of Ga. Ames' Polygraph we beli

Money received at the SCIENTIFIC AMERICAN Office on ccount of Patent Office business for the week ending Saturday, Aug. 11, 1855 :-

R. G. & Sons, of Mass., \$30; H. N., of Me., \$35; J. W B., of Ark., \$40; E. G., of N. J., \$30; H. R., of N. Y., \$60; I. C. C., of Mich., \$30; J. C. S., of Mass., \$10; H. H. L., of Ill., \$25; J. A. B., of Ill., \$12; J. A., of Pa., \$25; W. V. G., of Ct., \$70; H. B., & O. S. W., of Ind., \$25; J. H. J., of Iowa, \$25; H. N. S., of Ct., \$30; E. D. C., of Ct., \$10; S. & W. H. B., of O., \$30; E. V. P., of N. Y., \$225; D. N. R., of N. Y., \$277; W. P., of Miss., \$30; G. H. T., of N. Y., \$55; W. S., of N. Y., \$150; J. H., Jr., of Wis, \$155; H. M. C., of Ct., \$10; B. & C., of Mich., \$30; J. A. S., of Pa., \$30; W. M., of N. Y., \$20; B. & H., of N. Y., \$30; C. T. C., of N. Y., \$20; W. & B. D., of Ct., \$25; D. B., of Vt., \$12; S. B., of N. Y., \$35; C. W. S., of Mass., \$25; S. A. K., of Pa., \$20; C. J. C., of Pa., \$50; J. W. H., of R. 1., \$159; J. C. H., of N. J., \$30; A. K., of Ct., \$25; C. D. W., of Wis., \$40; R. D. N., of N. H., \$30; J. H., of Pa., \$30; P. H., of N. Y., \$55; S. T. P., of N. J., \$55

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Aug. 11:--

E. D. C., of Ct.; J. A. B., of Ill.; O. S. W., of Ind. H. H. L., of Ill.; J. A., of Pa.; E. R. B., of Ct.; W. V G., of Ct.; S. & W. H. B., of O.; F. K., of France; A P., of France; G. H. T., of Mass; A. K., of Ct.; J. H. J of Iowa; J. W. B., of Ark.; W. & B. D., of Ct.; S. B., of N.Y.; C. W.S., of Mass.; P. H., of N.Y.; J. L.T., of N.Y.

Important Items.

BACK NUMBERS AND VOLUMES-We have the following numbers and volumes of the SCIENTIFIC AMERICAN which we can supply at the annexed prices -Of Volume 5, 40 numbers, bound, \$1,75. Of Volume 6, all,-price in sheets, \$2; bound, \$2,75. Of Volume 8, none complete, but about 30 numbers in sheets, which will be sold at 50 cents per set. Of Volume 9, bound, \$2,75. Volume 10, all except Nos. 17, 25, 25, 27, and 28, at the subscription price.

PATENT CLAIMS-Persons desiring the claim of any in vention which has been patented within fourteen years. can obtain a copy by addressing a letter to this office, stating the name of the patentee, and enclosing \$1 for fees for copying.

RECEIPTS-When money is paid at the office for subscrip tion, a receipt for it will always be given; but when sub scribers remit their money by mail, they may consider the arrival of the first paper a bona fide acknowledg ment of the receipt of their funds.

MODELS-We are receiving almost daily, models of in ventions which have not the names of their inventors marked upon them. This usually prevents us from taking any notice of them whatever. We shall esteem it a great favor if inventors will always attach their names to such models as they send us. It will save us much trouble, and sometimes prevent the model from being mislaid.

PATENT LAWS AND GUIDE TO INVENTORS .- Congress having adjourned without enacting any new laws pertaining to applications for patents, we have issued a new edition of the old laws, which may be had at our coun-ter or sent by mail. This pamphlet contains not only the laws but all information touching the rules and regulations of the Patent Office. Price 12 1-2 cents per copy.

4	lines,	for each	insertion,	•	-	-	\$ 1
8	**		••			-	\$2
12	*					-	\$3
15	"		••				\$4

umns at any price, I All advertisements must be paid for before inserting.

IMPORTANT TO INVENT-ORS.

Init out the transmission of the second s

and great success of our firm in obtaining patent, present to inventors, they are in runed that all inventions pat-

MERICAN IN STITUTE of the City of New York. A MERICAN IN STITUTE of the City of New York. The Managers announce that they have made arrange ments to hold this exhibition in the Crystal Palace, com-magnificent and spacious building will be opened for the reception of articles, from Thursday, the 27th of Septem-ber, until Tuesday, the 21 of October next. This and the state of the state of the state of the reception of articles, from Thursday, the 27th of Septem-ber, until Tuesday, the 21 of October. Heavy machinery and other antibutes from a distance can be forced will be opticated on the theth of a distance can be forced will be opticated on Printing states of the state tion of competent judge. The Managers would impress up on Exhiberof the excessity of giving immediate notice of the state required for the state of the state of the trace and be adout output in the state of the st

EXHIBITION OF THE MARYLAND INSTITUTE, Baltimore.—The Eight Annual Exhibition by the "Maryland Institute, for the promotion of the Mechanic Arts," will be opened on Tuesday. 2d of October next. Goods will be received for exhibition and competition at any time prior to September 20th, and for exhibition merely, as late as 1st of October. The co-operation of the manufacturers, mechanics, artists, and the community generally is respectfully invoked in the immediate prepa-ration of articles for display. All articles deposited must be of American manufacture; the only exception to this rule being in favor of rare specimens in the department of the Fine Arts, owned by parties not holding them as merchandise on sale. Circulars, embodying the regula-tions and arrangements, and blank applications for space, with all other information may be had at any time of the Actuary of the Institute, at the Hall. JOSHUA VANSANT, 42 the Chairman of Exhibition Committee.

DREMIUM SELF-ACTING Drilling Machine-the most perfect yet produced. The American Institute of New York, and the Massachusetts Charitable Mechan-ics' Association, each awarded to it a silver medal and diploma. For sale at the Atlas Foundry, corner of Greene and Wayne streets, Jersey City. Price, \$250. J. F. WARD & CO. **PREMIUM SELF-ACTING** Drilling Machine most perfect yet produced. The American line

J. F. WARD & CO. J. F. WARD & CO. IMPORTANT TO (UARRYMEN, Stone Cutters, Contractors, and Builder.s-Porter's Patent Spring Iammer Stone Dressing Machine. The Porter Stone Dressing Machine Co., having purchased the patent for the above invention, are now prepared to sell rights to use the same, and to furnish Machines, and erect them at any place within the United States. This machine may be seen in practical operation at the works of the Company, in the city of New York, on 11th street, between 9th and 10th avenues, where parties interested in the business of working stone, and the public generally, are invited to call and satidy themselves as to its utility. The Machine is very simple in its construction, and not liable to geto at of order. It works with about equal advantage on every kind of stone, and will perform the labor of from twenty. five or fifty men at a total expense of from S8 to \$12 per fect arris, and cuts moldings with rapidity and beauty. Its operation is precisely that of the mallet and chisel in the hands of the workman. It combinesgreat power with the hade to the workman. It combinesgreat power with the nectide licacy, and has received the unitorm and decided approval of practica. men. In addition to its regular work, it will be tried on any stone, and subjected to any test, that parties examining it may desire. To those who are unable to visit the Machine personally, a circular with engravings and a full description will be sent on applica-tion. Office of the Porter Stone. Dressing Machine Co., 37 Wallst, New York. A. B. CAPW ELL, Prest. 47 20 FARLMENS AND ALL OTHERS INTER

47 3eow **TO FAILMERS AND ALL OTHERS INTER** 1835, "The Year Book of Agriculture, or the Annual of Agricultural Progress and Discovery for 1×35," -exhibit-ing the most important discoveries and improvements in Agricultural Mechanics, Agricultural and Horticultural Botany, Agricultural and Economic Geology, Agricultural Zoology, Meteocology, Ac.: together with admitted Totany, Meteocology, Ac.: together with admitted Totany, Meteocology, Ac.: together with admitted by the Fditor on the Progress of American and Foreign Agriculture for the year 1535. By DAVID A. WELLS, A. M. The Year Book of Agriculture will be published in 1 Vol. 12mo., of 400 pages, and will contain an elegant sc. Although the publication of this work will be at-tended with very heavy expenses, it will be published at the low price of \$12,5, thereby enabling every farmer to posses a copy. On receipt of the published price it will be sent free per mail to any part of the linke States. As the sale will be very large, allorders should be sent in immediately. A liberal deduction to Clubs. Address (HILDS & PETERSON, Publishers, 1 UI Arch street, Philadelphia.

SAWS-PATENT TEMPERED AND Machine-Seround Saws. Circular Saws manufactured on these improved principles can be used thinner and with less set, and can be run faster than any hitherto made. All sizes warranted perfectly even in thickness and temper, and made of the very best material. HENNIAW & CLEMSOM, 21 Exchange st., Boston. 497* less All

APETY RAILROAD pRAWBRIDGES AND Self-Locking Switches, [Patented.]—This invention will secure to the traveling community perfect safety while journeying on railroads. The apparatus is so ar-ranged that simultaneously with the opening of a draw, switches (on each side of the river) are unlocked and moved to connect with inclined sidejings; and at the same time signals, attached to the switch bars are made to in-dicate that the draw is open. The self-locking switches can be used separately at any of the turn-outs of a rall-road, and thereby prevent the constantly recurring acci-dents occusioned by needled of bolding switch levers, as these switches bolt and unbut themselves when mored by the draw of a bridge or the lever at a turn-out. For the purchase of rights under the patent or in-pection of a model, apply to J. K. (JAMBIA, & BIROTHER, No. 5 Margaretta st., near Front, Philadelphia. 494*

TATUE VIV(UCAL INSTRUMENTS-The undersigned furniches, free of charge on application, to all parto f the 'nited States, his new Illustrated Cata-logue of Mathematical, Optical, and Philosophical Instru-ments. C. T. MSL/PR, 21 Chestnut st., Philadelphia, Pa.

VENTILATION-The under signed has devised and patented the only system by which a spontaneous ventiation can be effectually carried out in buildings, vessels, railroad cars, &c., and will sell to parties desirous of purchasing of the same at a reasonable price. Address H. RUTTAN, Coburg Canada. 49 13 *

TETROUGHT IRON PIPE-Boiler Flues, Globe

NCRCROSS ROTARY PLANING 18-22 and 1854, having decided that the Datent granted to Nich-olas G. Norcross, of date Feb, 12, 1850, for a Rotary Pla-ning Machine for Planing Boards and Planks is not an infringement of the Woodworth Patent. Rights to use the N. G. Norcross's patented machine can be purchased on application to N. G. NOR CROSS. 208 Biroadway, New York.

THE EUROPEAN MINING JOURNAL, RAIL-A ward Commercial Gazette. A weekly newspa-per, forming a complete history of the Commercial and Scientific Progressof Mines and Railways, and a carefully collated Synopsis, with numerous Illustrations, of all New Inventions and Improvements in Mechanics and Civil Engineering. Office 26 Fleet street, London. Price \$6,50 per annum. 36tf

POWER PLANERS—Persons wanting Iron Planers of superior wormanship, and that always give satis-faction, are recommended to the New Haven Manufactur-ing Company, New Haven, Conn. 40tf

ATHES, PJ.A.NERS, and all kinds of Machinists' Tools of the best description on hand and made to order by SHRIVER & BROS., Cumberland, Md., (on Baltimore and Ohio R. R., midway between Baltimore and the Ohio River.) 43tf

A NDREWS & JPSUP-Commission Merchants, Cotton and Woolen Machinery, Steam Engines, Machinists' Tools, Belting, &c., Importers and Dealers in Manufacturers' Articles; No' 67 Pine street, N. Y. 23 IY

ACHINISTS, TOOLS-Manufacturers, Mechanics and Railroad Supplies, Locomotive and Stationary Engines, Steam Boilers, Belting, Cotton and Woolen Ma-chinery, Water Wheels, Pumps, Blowers, & C. FOSTER & LEACH, 25 Broadway, N. Y., Selling Agents of the Lawrence Machine Shop. 36 13*

NEW HAVEN MFG. CO.—Machinists' Tools. Iron Planers, Engine and Hand Lathes, Drills, Holt Cut-ters, Gear Cutters, Chucks, &c. on hand and finishing. These Tools are of superior quality, and are for sale low for cash or approved paper. For cuts giving full descrip-tion and prices, address, "New Haven Manufacturing Co." New Haven, Conn. 40 ly

HARRISON'S GRAIN MILLS-Latest Patent.-sub00 reward offered by the patentee for their equal. A supply constantly on hand. Liberal Commis-sions paid to agents. For further information address New England Manufacturing Co., New Haven, Cono., or to S. C. HILLS, our agent. B Platt street. New York 13:6

B.ELY, Counsellor at Law, 52 Washington street, Boston, will give particular attention to Patent Cases. Refers to Messrs. Munn & Co., Scientific Ameri-can. 16 ly*

VAIL'S CELEBRATCD PORTABLE STEAM Engines and Saw Mills, Bogardus' Horsepowers, Saut Machines, Saw and Grist Mill irons and Gearing, Saw Gummers, Ratchet Drills, &c. Orders for light and heavy forging and castings executed with dispatch. 8 ly* LOGAN VAIL & CO., 9 Gold st., N. Y.

ONE THOUSAND YOUNG MEN of small means Can make over 100 per cent., in a new, respectable and say business in universal demand. Apply (enclosing tamps) to COOK & CO., Detroit, Michigan. 48 2*

1855 - WOOD WORTH'S PATENT Plan-The subscriber is constantly manufacturing, and has now for sale the largest and best assortment of these unrivalled machines to be found in the United States. Prices from \$50 the \$1490. Rights for sale in all the unoccupied Towns in Naw York and Northereo Pennergivasts, JOHN CHI SON, Planing Mills, Albany, N. Y. 45 10*

JACK SCREWS AND HYDRAULIC JACKS. For sale at manufacturers prices, by FOSTER & LEACH, 20 Broadway, N. Y. 37 13*

MERICAN PLATE GLASS COMPANY- (Pac-tory Williamsburgh L. I.) are now prepared to at-cute orders for rough Plate Glas, suitable for floors, sky-lights, vault, and deck lights. Prompt attention will be given to orders left at their office, 442 Broadway, or their agent, J. R. PLATT, 79 Murray st. 428*

CAPITALIST'S WANTED TO TAKE PAT-onis Abroad-Mr. L. G. Evans of Spring Hill, Ala., has just taken a valuable patent in this country for an im-provement in plaws, and desires to find some person who will, for an equal share of the invention in England or any other foreign country, pay the fees necessary to take the Patent. The cost would be about \$330 for Eng-land, \$150 for France, etc. For particulars address L. G. EVANS, Spring Hill Post Office, Ala. 47 3*

TO MANUFACTURERS-THE AMERICAN Water Wheel Co., Wareham, Mass., are now manu-facturing to order, Warren's 'Jurbine Water Wheels, from new and improved patterns, got up expressly for manufacturers. These turbines are made in the most per-fect manner, and on the most scientific principles. Cotton and weolem manufacturers will do well to examine them before purchasing elsewhere. We also manufacture a cheap turbine on nearly the same plans, but with less finish and less cost. They are well adapted to grist mills and small manufacturing establishments. J. WARREN. Agent. J. WARREN, Agent. A. WARREN, Treas. 474

GRAIN MILLS - KD WARD HARRISON, of New Haven, Conn. has on hand for sale, and is constantly manufacturing to order, a great variety of his approved Flour and Grain Mills, including Bolting Machinery, Ele-vators, complete with Mills ready for use. Orders ad-dressed as above to the patentee, who is the exclusive manufacturer, will be supplied with the latest inprove-ments. Cut sent to applications, and all mills warranted to give satisfaction. 45 tf

CIPERION MACHINISTS' TOOLS-CARPEN. TER & PLASS, footof 30th st, East river, N. York, are now building, and have constantly on hand, Lathos, Drill-ers, Planing Machines, Slotting Machines, Bolt Cutters, Gear Cutters, Surfacing Machines, or will make to order any other tools of any capacity required. The above Tools combine all the latest improvements, and the Lost work-manship. 48 2*

200 6th Avenue. Professor Vergnes discovered some Protessor

391