

the Scientific American Patent Agency, which now has branch offices in New York, Washington, London, Paris and Brussels. In reference to this particular department, its success will be made to more fully appear hereinafter, as well as in the article entitled "Stubborn Facts," which will be found in another column.

We consider it pertinent to enquire, here, what has been the influence of the SCIENTIFIC AMERICAN upon the arts and sciences? The fact cannot be ignored that it has done essential service in these interesting fields of exploration—these exhaustless mines for human research; for, from its origin up to the present moment, its career has been marked by a most rapid development of our national resources, a vast increase in the number and value of inventions, and a wonderful advance in mechanics, chemistry and all branches of industry. Apart from presenting any facts in support of such statements, it is self-evident that a periodical devoted to the dissemination of information on peculiar subjects must excite the minds of its readers and stimulate them to perform actions which they never otherwise would have contemplated. That such has been the influence of the SCIENTIFIC AMERICAN is beyond all question; many new and useful inventions, and which have become permanently important to our country, were nourished into existence by its teachings. Take for example, sewing machines, which have now become articles of both public and domestic usefulness throughout our whole wide-spread dominion, and they are now being manufactured and sold at the rate of at least 1500 weekly; and yet, in 1846, there was not a single one in operation anywhere. In that year, Mr. Elias Howe, Jr., obtained the patent for his combined needle and shuttle machine; but the public were generally oblivious of the fact until the subsequent year, when one of the editors of this paper hunted up the invention, described it, and directed public attention to the extended field opened for its application. This was the means of awakening a general interest in regard to its importance (for Mr. Howe did little to bring it into notice), and the consequence was, the minds of inventors were excited with the subject, and the latent genius of Wilson, Singer and others was thus stimulated and developed to the splendid results which have since been accomplished. We could particularize other important inventions which have had a history nearly similar but space requires us to be more general.

When the SCIENTIFIC AMERICAN was first issued, agricultural machinery was in a very low condition, and very unfavorable comparisons were made between the paucity of inventions of this class and those for manufacturing purposes. We directed special attention to this fact, and the result has been a most wonderful development in this department. A thousand reaping-machines are sold to-day for one in 1848; while hand-planters and several other entirely new machines have come into general use. No less than 561 patents were issued last year for agricultural implements, and for the number and superiority of such improvements we now surpass all other nations. It is also a pleasing fact to state that many very large fortunes have been made out of this branch of invention; the field being still inviting and prospectively increasing in importance.

The electrotyping art—so beautiful, and now so extensively practiced—was almost unknown to our people twelve years ago. It was first brought prominently to their notice by a series of illustrated articles on the subject, from the pen of one of the present editors of this paper, published in Vol. III.

Gutta-percha, now so much used for tubing, clothing, covering wires, and a hundred other useful applications, was not employed for any purpose whatever in the United States in 1846. We early became acquainted with its qualities, and published such information as, we believe, has much contributed to its general introduction.

In the year in which the SCIENTIFIC

AMERICAN had its birth, there were only 900 miles of telegraph line in operation in our whole continent: now there are more than 30,000. We published much original information regarding the principles and instruments for communicating intelligence by this wonderful system, and were its early advocates.

In the same year there were only 4,870 miles of railroad in operation: now there are 28,238. Nearly all the most valuable inventions for railroads have been illustrated in our columns and a number of reforms now adopted for their better management were first discussed in this journal.

Several very great improvements have been made in hydraulic meters; and the compact economical turbine-wheel has superseded, in hundreds of instances, the old and expensive "overshot." Our series of illustrated articles on this branch of practical science, in Vol. VI., has tended greatly to produce this result.

Again: in the year 1846 we had only two small steamers in connection with our ocean service: now we have over forty, each of which is of such magnitude that it could almost stow away any of the older ones within its coal-bunker. The SCIENTIFIC AMERICAN has long asserted that there here exists a vast field for investigation and improvement; our steam marine is but in its infancy, and there are loud demands for more economical apparatus for supplying the motive power.

In 1846 there were only 619 patents issued; in 1858 there were 3,710—a six-fold increase—a result which we know is due, in a great measure, to the topics discussed by us, and the hints we have thrown out touching the wants of the community.

Time would fail us if we attempted to crowd our experience of the past fourteen years into that amount of space to which we must confine ourselves; suffice it to say that there is not a branch of mechanics, engineering, or the useful arts, but has been improved and benefited by the influence of the SCIENTIFIC AMERICAN ever since it was first published. It has breathed upon the "still waters" of many minds, and they have been stirred to impart utilitarian influences; it has awakened emotions which otherwise would have been slumbering still; and these have gone forth carrying improvement after improvement into every corner of our land.

In reference to the present influence and circulation of the SCIENTIFIC AMERICAN, it is almost needless for us to say that it is marked and extensive. Its progress in popular favor has been steady and solid, unlike that of many journals of a light literary caste, which have come and gone like the comet. A distinguished European *savant*, in speaking of our paper, characterized it as "a magnificent illustrated panorama of the industry of both hemispheres;" and in his own journal he further said:—"Savans, manufacturers, inventors, and all persons who, from any title, are interested in the progress of the arts and sciences, have been engaged to contribute to it. This publication is a mirror wherein is reflected all the attempts, all the endeavors, all the experiences, all the results of modern inventions. The *savant* can here find the steps which genius makes each day in the paths of science. The manufacturer draws thence perfections of art, which must modify constantly the conditions of labor. The inventor there beholds clearly the discoveries already made, and is spared from useless researches and labors. The merchant, too, finds there precious documents; the public, in short, learns each week what is new in the universe of arts and industry. England has many similar publications, but no journal in the three nations has obtained or merits the immense success which has made the fortune and glory of the SCIENTIFIC AMERICAN."

Our Patent Agency Department.

One of the most interesting and attractive institutions in connection with our government is the United States Patent Office, located at Washington; it is the storehouse

and monument of the ingenuity of our countrymen, and no intelligent person would think of visiting that city without making at least one visit to that department.

The Constitution of the United States makes special provision for the protection of the rights of inventors and authors; and under its fostering care there has grown out our present almost inimitable patent law system. It is needless, here, to describe that system, as it is more fully elaborated elsewhere. Suffice it to say that, in consequence of the rigid system of examination preliminary to the issue of a patent, the conflicting interests constantly coming under the supervision of the Office, the paramount value of many of the inventions for which patents are sought, and the great necessity that the papers of the claimant should be carefully prepared, there has grown up a profession, as it were, the members of which are usually designated "patent agents" or "patent solicitors," and who have become as much a necessity for the proper transaction of business with the Patent Office as the lawyers are in our courts of justice. We are sorry also to add that in this, as in the legal profession, there are "shysters" and "suckers," who, vulture-like, watch for an inventor, mainly for the purpose of despoiling him of his honest rights and oft-times scanty means. These persons have no professional reputation, and only eke out a livelihood by a low craftiness which, to the eyes of strangers, has in some measure thrown discredit upon honorable men engaged in the business, of which there are many.

We will here state, in reference to ourselves, what no one will presume to deny, that since our first connection with the SCIENTIFIC AMERICAN, in 1846, we have examined into the novelty of more inventions than any other patent agents now living in this country. During all this time, we have never engaged in speculating in patent rights, but have made it a rule to discharge instantly from our employment any one who might engage in such speculations; and we are able to state that we have never had any necessity to enforce this rule, although some of our *employés* have been with us since we started in business. It is a difficult thing for persons unacquainted with our methods, to understand how we are able to transact so large a business, and with such great success. Rapidity, executive tact, and close application to business, are often mysteries which slow people cannot understand. Alexander T. Stewart, the most successful merchant in the United States, if not in the whole world, and doing a business of ten millions a year, is a mystery to all his competitors. Go and look at him in his mammoth mercantile palace on Broadway. You see an unassuming, delicately-framed man, by no means exhibiting marked evidence of ability; but converse with him a little while about his business, and you will find that no department escapes the scrutiny of his eye.

We will here present a brief account of the manner in which the immense business of this office is transacted. Probably not more than one in every fifty of our patrons ever personally visits our establishment. We often regret that we cannot have a more intimate personal acquaintance with them, as this would enable us to explain the peculiar *modus operandi* of our business, and our clients could also more fully elucidate their ideas in reference to their various improvements, with much more distinctness and intelligibility than can be done by letter; but as a visit is out of the question in most cases, we have prepared and distribute (gratuitously) circulars of instruction how to proceed to procure American & European patents, a careful perusal of which will enable inventors to understand what is required of them in order to present their case in a proper manner. These circulars save us a vast deal of writing, as they fully answer all the leading enquiries that usually present themselves to inventors desiring protection under our patent laws. As will be inferred from the remarks above, our business is mostly transacted

through the mails and express. The average number of letters daily received by the office is at least one hundred, and in the busiest seasons of the year—as, for instance, the beginning of a new volume of the SCIENTIFIC AMERICAN—the number has reached as high as three hundred per day. The first business of the morning, on the part of the proprietors, is to open and carefully examine the correspondence. A division is then made of this correspondence, according to its character; that portion pertaining to the business of the journal—such as subscriptions, complaints, changes of address, requests for back numbers, &c.—is referred to the Superintendent of the Subscription and Mailing Department, whose duty it is to faithfully observe and, if possible, fulfil every request. There are many little business details in this department which it is unnecessary to specify, but which are important adjuncts to the machinery of the office. Contributions intended for publication, and questions presented for answers in our column headed "Notes & Queries," are all carefully examined and properly disposed of by an accomplished editorial corps. Letters accompanied by sketches and descriptions of alleged new inventions are properly classified and then submitted to whoever in the office is most competent by long experience to decide upon their patentability; his opinion is carefully written down on a slip of paper, which is attached to the letter, and this is then handed to one of the principals, whose business it is to scrupulously supervise these opinions and then hand them over to the Corresponding Clerk, who writes a full and proper answer to the correspondent. These replies are examined and signed by one of the firm, and then dispatched to the Post Office. Thus it will be seen that it is almost impossible for a single letter to be passed by unnoticed. Correspondents sometime do not consider that their letters to us or our replies to them might have been miscarried; therefore, once in a while, we get a letter of complaint for not answering some writer with as much promptitude as we had done others. We seldom, however, encounter a correspondent whose impatience cannot be appeased by a proper explanation; and it is a most significant fact that, out of the thousands of letters annually addressed to us, we rarely receive an uncourteous one. This of itself assures us that, in our professional intercourse with our patrons, satisfaction is almost invariably given. Like all other publishers we sometimes receive letters from unknown sources, which are usually thrown into our waste basket without examination, because, as a general rule, they are regarded as wholly unreliable and unworthy of attention.

Models of new inventions are usually transmitted to us through the medium of the various expresses of our country, and are delivered to us with a dispatch and care highly creditable to the efficiency of this system of carrying. It is seldom that a model is miscarried, and we cannot remember a single instance in which we lost a model beyond recovery. The expressmen usually begin to deliver their boxes of models about 9 o'clock, A. M.; the models are put into a private room and there opened by a trusty porter, who immediately brings them to the desks of the principals, who speedily attend to their examination and disposal; and in the proper arrangement and preparation of applications for patents on models entrusted to their care, they are assisted by twelve examiners and draughtsmen of approved ability and tried integrity.

All funds remitted to us on account of applications for patents are immediately placed to the credit of the inventor to whose case the money applies; and in every issue of our journal, we acknowledge these weekly receipts by the initials of the sender. This enables our correspondents to quickly detect any detention in the proper reception of their remittances, which are usually not acknowledged by letter until the model reaches us, when the case is considered completed in our hands.

After the drawings and specification of a case are prepared, they are at once sent to the applicant, for his signature and oath, accompanied by printed directions for their proper execution. On their return to us, they are at once forwarded to the Patent Office; registers of these transactions being kept, to avoid the possibility of mistakes. Many minute details are involved in the careful registration of these applications, all of which are under the supervision of one of the principals.

One very important department of our establishment is that devoted to the procurement of foreign patents; this receives the especial attention of one of the firm, who, from long experience and personal observation in Europe, is qualified to advise on all points relating to this branch of the business. It is believed that over two-thirds of all the patents obtained abroad by American inventors are secured through our European agencies. Correspondence and conversations in the office are conducted by the *attachés* of this department in the French, German and Spanish languages; so that no foreigner need feel embarrassed in consulting or writing to us, even though he may not be familiar with English.

Stubborn Facts.

In another part of this number we have entered quite extensively into a description of the rise and progress of the SCIENTIFIC AMERICAN, and have also made an exposition of our Patent Agency Department, and of the complete system by which this branch is managed. As corroborations of our statement in reference to the unparalleled success which has hitherto attended this division of our professional labors, we here present a few gratifying extracts from letters recently received by us from some of our clients, followed by the testimonials of the two ablest and most popular Commissioners of the Patent Office:—

John Fairclough, of Louisville, Ky., writes: "I received my Letters Patent from the United States Patent Office on Monday. I return you my sincere thanks for getting it through so quick. I think you are friends to inventors—punctual, honorable, responsible men, and I wish you success. If I should have more patent business I shall know it is safe in your hands."

Philander Perry, of Troy, N. Y., writes: "I have to-day received the specification and claims on my invention; and just as some doubts, as to unnecessary delay (a thing that too frequently happens to anxious inventors by patent solicitors who take in cases, and then take their own time to give them attention), began to arise, they were dispelled by the reception of my voluminous papers; thus adding a new obligation of interest and fidelity to you. I say it sincerely and honestly, the interest of the inventor is yours. You have exceeded my expectations, both as to the character and also the extent of my claims; by them I feel fully protected. Please find within your very reasonable fee. For this and many other favors receive my ardent gratitude."

Henry Benter, of Wheeling, Va., remarks: "I have forwarded the specification and drawings signed as directed. I return to you my sincere thanks for the very satisfactory and very efficient manner in which you have drawn up the specification and claims for my invention, and I must confess you have earned double the money charged."

Abner L. Butterfield, of West Dummerston, Vt., acknowledging the receipt of his patent, observes: "I received my Letters Patent on January 21. Please accept my sincere thanks for the prompt and expeditious manner in which you have managed my case. I have taken the SCIENTIFIC AMERICAN more than two years, and would not do without it for more than twice the sum I have to pay for it."

E. A. Goodes, of Philadelphia, Pa., says: "I was very agreeably surprised this morning by receiving my papers from the Patent Office. I had no idea of the progress you were making

with my case. You have certainly been very expeditious. I did not expect to get the papers for some time yet. Your system must be very perfect to accomplish so much in so short a space of time. I shall take great pleasure in recommending you among all my acquaintances who may have business with the Patent Office. Please accept my most sincere thanks for your services. I do not believe that I could have obtained the patent had I made the application myself or through any other agency."

The next extract is from Edwd. Savage, of Middletown, Conn., one of our oldest and best clients, for whom we have taken out many patents in this country and abroad. He is not only an inventor but a manufacturer of firearms; he writes: "I am pleased to acknowledge the receipt of my patent papers. I feel under obligations to you for the dispatch with which you have executed my business heretofore, and doubly so in this instance, as this completes every improvement necessary to make a perfect revolver."

J. L. G. Ward, of Adrian, Mich., writes: "I received my Letters Patent for my first application two or three days ago. I need not say I am well pleased with the obliging courtesy and promptitude which have characterized your exertions for me. While in the eastern States last winter, I visited some other patent agencies, thinking that, as they were less widely known, their fees would be smaller; but I found them to be fifty per cent higher, while their facilities for doing business were many hundred per cent lower. If your modesty will allow, I would be glad to see this published in your columns for the benefit of a host of inventors."

W. S. Kirkham, Secretary of the Squire and Parsons Manufacturing Company, at Branford, Conn., remarks: "On the 16th inst. I received from the Patent Office my Letters Patent on 'Improvement in Locks,' dated March 15. I wish to express my obligation to you for the clearness with which you have described the principles of my claim in the specification, and the promptness with which you have obtained the papers. It fully confirms the reputation of your agency for correctness and dispatch in that business."

D. Wellington, of Boston, Mass., sends us the following: "I have just received your last, and also my Letters Patent from the government; I was truly glad to do so, as (like all the rest of mankind) I always like to meet with success in all my undertakings. At the very onset, however, your well-known reputation for thoroughly presenting all your cases at the Patent Office was a sufficient guarantee that success would certainly crown my application if the case was worthy of it. Please accept my thanks. I shall take pleasure in recommending your firm to persons desiring to secure patents."

We present with much pleasure the following flattering testimonial from the Hon. Judge Mason, who, while Commissioner of Patents, made his mark upon the interests of that office in "lines drawn out in living characters," and who resigned his position very much to the regret of all. It was addressed to us while he was temporarily sojourning at Ballston, N. Y., soon after his retirement from office.

GENTLEMEN:—I take pleasure in stating that while I held the office of Commissioner of Patents, more than one-fourth of all the business of the Office came through your hands. I have no doubt that the public confidence thus indicated has been fully deserved, as I have always observed, in all your intercourse with the Office, a marked degree of promptness, skill, and fidelity to the interests of your employers. Yours, very truly,

CHAS. MASON.

Judge Mason was succeeded in that important bureau by the Hon. Joseph Holt, of Kentucky, who was previously but little known beyond the confines of his own State; but who distinguished himself while he held the office of Commissioner of Patents, by his executive ability, inflexible honesty, uniform affability, and keen sympathy for the interests of the inventor. Upon the death of Gov-

ernor Brown, he was appointed to the important office of Postmaster-General of the United States; and immediately after entering upon his new duties he addressed to us the following pleasing letter.

GENTLEMEN:—It affords me much pleasure to bear testimony to the able and efficient manner in which you discharged your duties as Solicitors of Patents while I had the honor of holding the office of Commissioner. Your business was very large, and you sustained (and, I doubt not, justly deserved) the reputation of energy, marked ability, and uncompromising fidelity in performing your professional engagements.

Very respectfully, your obed. servt.,
J. HOLT.

Extension of Patents—Important to the Inventors of 1845.

It is always a matter of more or less difficulty to introduce a new thing, and bring it into the notice and favor of the public. Hence it is that some inventors spend the best portion of their lives in endeavoring to find people who will adopt and employ their inventions. When the summit of this mountain of difficulty is reached, it is down-hill traveling thereafter. The thing moves of itself, and a golden current is often encountered which rapidly fills the coffers of the discouraged patentee. The history of the Woodworth Planing-machine Patent, of Colt's Pistol, of Goodyear's India-Rubber Patent, of Howe's Sewing Machine, and of the Wheeler & Wilson Sewing Machine, are examples in point. Many others might be cited. In these cases it was not until the life of the original patents had more than half expired that the patentees began to reap those golden harvests for which they are now so celebrated; and in some of the cases named, it was not until the extended term of the patents was granted that prosperity dawned upon their possessors.

Hundreds of valuable patents are annually expiring which might readily and legally be extended; and if extended, might prove the source of untold wealth to their fortunate possessors.

How many of the patentees of the year 1845 have become old and infirm, and their families destitute, while the invention of the sire lies dormant, unnoticed and unknown? How many of the patentees of 1845 are dead—gone, never more to return! bequeathing as their only legacy to remaining friends the parchment patent for some invention, perhaps a noble one, which may yet bring wealth and honor to the legatees, and cause the inventor's name to live again?

We are persuaded that very many patents are suffered to expire without any effort at extension, owing to the ignorance of the patentees, their relatives or assigns, as to the current law and the mode of procedure in order to obtain a renewed grant. We shall, therefore, give a few brief hints upon this subject, and close with a list of those persons whose patents will expire during the present year, and whose inventions will become the property of the public unless extended according to law.

The statute of 1836 provides that, when an inventor has failed to receive a sufficient reward for his invention during the existence of the original patent, he may apply to the Commissioner for an extension of the term; and the Commissioner, on the presentation of proper proofs touching the amounts received by the applicant, the value of the invention, &c., is empowered to extend the patent for seven years, so that it will run for a period of *twenty-one years* from its original date. Some of the most valuable grants now existing are *extended patents*.

The proceedings and papers required for an extension are as follows:—

1. Payment of \$40 government fee into the Treasury.
2. Filing of petition for extension at least sixty days prior to the expiration of the patent.
3. Appointment of the day of hearing and publication of the application for extension in newspapers selected by the Commissioner.

4. Surrender of the existing patent to the Commissioner.

5. Filing of statement by the patentee, in writing, under oath, of the ascertained value of the invention, with his receipts and expenditures in sufficient detail to exhibit the profit and loss arising from the invention.

6. Statements, under oath, of disinterested witnesses, supporting the petition.

7. Reference of the case to an examining officer.

8. Report of the Examiner to the Commissioner.

9. Hearing before the Commissioner, at which the arguments by counsel on both sides for and against the extension will be heard.

10. Final decision of the Commissioner of Patents.

11. Decree of extension and certificate thereof upon the original patent.

All the documents connected with extensions require to be carefully drawn up and attended to, as any failure, discrepancy or untruth in the proceedings or papers is liable to defeat the application. Applicants for extensions should always place the management of their cases, from first to last, in the hands of faithful and experienced patent attorneys. Ordinary lawyers or agents, who have had no experience in extension cases, should never undertake them.

The government fee in extension cases is \$40, as before stated. To this must be added the charges of the attorney who conducts the case, which should be agreed upon beforehand.

In case of the decease of the inventor, his administrator may apply for and receive the extension; but no extension can be applied for or granted to an assignee of an inventor. The inventor or his heir may, under certain circumstances, however, assign his interest in the extension, before it is obtained, so that when granted, the extended patent will revert to the assignee.

LIST OF PATENTEES WHOSE PATENTS EXPIRE IN 1859.

[N. B.—The localities assigned to the parties mentioned below were their places of residence at the time their patents were originally granted.]

- Anderson, S. Garrettsville, N. Y., hammer, Aug. 20.
- Aldrick, Jacob Middletown, Ct., latches for doors, May 24.
- Anderson, Alex. Paterson, N. J., spindle steady, November 21.
- *Atwood, Anson Troy, N. Y., stoves, air-tight, March 20.
- Allen, Oliver Norwina, Ct., excavator, May 1.
- Aylesworth, C. Batsbridge, N. Y., water-wheel, May 16.
- Ackerman, G. L. Troy, N. Y., wheels for carriages, April 25.
- Andrews, Joseph E. Boston, Mass., planing-machine, November 21.
- *Allen, Eben Norwich, Ct., pistols, April 16.
- Allen, John Cincinnati, O., teeth-setting, Dec. 15.
- Arrowsmith, Geo. New York, inkstand, October 7.
- Arrowsmith, Aug. T. New York, inkstand, Oct. 7.
- Arthur, Chas. Keesville, N. Y., grindstones, Aug. 26.
- *Andrews, John Belleville, N. J., cloth-felting apparatus, January 31.
- *Arndt, Jacob Wheeling, Va., saw-filing, Feb. 24.
- Briggs, Jos. D. Saratoga, N. Y., corn-sheller, June 14.
- Barrall, T. D. Geneva, N. Y., corn-sheller, Dec. 6.
- *Bennett, James H. East Bennington, Vt., flax-pullers, January 23.
- *Ball, Ephraim Greentown, O., plow, Feb. 20.
- Bullock, Wm. Jersey City, N. J., plow, July 30.
- Bell, John Greentown, O., plow, November 8.
- *Brant, Nathan Leonardsville, N. Y., hoe nocks, April 1.
- Buttrick, Nathan Chelmsford, Mass., lead pipe machine, November 8.
- Bull, Jonathan New York, machine for riveting pipes, December 20.
- Brooks, Simon Chester, Ct., manuf. of screws, Jan. 23.
- Blanchard, Israel Troy, N. Y., spoke-machine, May 10.
- Billings, G. W. Glasgow, Mo., hemp-dressing, Jan. 27.
- Billings, G. W. Glasgow, Mo., hemp-dressing, May 1.
- *Barnum, Daniel Bridgeport, Ct., loom power, Mar. 26.
- Bigelow, Erasmus B. Boston, Mass., loom-power, April 10.
- Burt, Enoch Manchester, Ct., loom-stop application, June 20.
- *Bigelow, E. B. Boston, Mass., loom-templates, Feb. 24.
- *Bigelow, E. B. Boston, Mass., loom tension warp, March 12.
- Bishop, Wm. Coventry, Ct., paper-machine, Dec. 31.
- *Boyd, A. Providence, R. I., printing galley, April 23.
- *Bigelow, E. B. Boston, Mass., spider fibers, Feb. 24.
- Baxter, William Paterson, N. J., spinning, Sept. 30.
- Brand, Benjamin, N. Y., gates, April 10.
- Barnett, Phineas New York, raising wrecks, Sept. 2.
- Bean, Samuel H. Philadelphia, Pa., replacing cars on track, October 11.
- Benton, Benj. S. Hartford, Me., hydraulic ram, Dec. 24.
- Bullock, W. Jersey City, N. J., cotton-press, Jan. 4.
- Bullock, S. W. Williamsburg, N. Y., toggle-joint, Jan. 10.
- Bennett, Charles Pepperill, Mass., mofising machine, September 17.
- Briggs, John C. Saratoga, N. Y., shoe-pug machine, October 9.
- Brown, Benj. Burlington, Vt., planing-machine, Oct. 9.
- *Buckley, Benj. Cincinnati, Ohio, planing-machine, March 2.
- Biggs, James New York, tenoning-machine, Nov. 12.