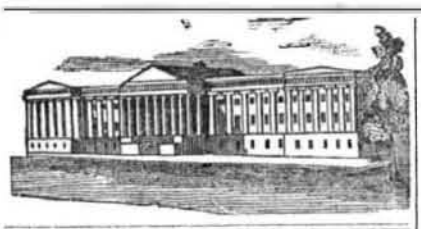

LIST OF PATENTS CLAIMS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending January 1, 1850.

To Albert G. Bagley, of New York, N. Y., for improvement in Pen and Pencil Cases.

I claim the auxiliary interior tube, in combination with the two outside tubes, and in the manner substantially as herein described, and for the purpose set forth.

To James M. Clark, of Lancaster, Pa., for improvements in combining Grinding and Bolting Machines.

I claim the combination of an adjustable grinding mill, with an adjustable bolting machine, both worked on one shaft, and adapted to each other, so that both or either, can be adjusted, substantially in the manner and for the purpose above made known.

To Ashley Crafts and Ebenezer Weeks, of Auburn, Ohio, for improvement in instrument for paring horses' hoofs.

What we claim is the combination of the gripe, the arm and knife, whether made with or without the adjustive plates and joint pin, or in any way substantally the same, and of any suitable size and material.

To J. Crane & F. H. Hamilton, of Schenectady, N. Y., for improvement in Hemp Brakes.

What we claim is the combination of the revolving rollers, with the swords or beaters arranged and operating substantially in the manner herein described.

To C. O. Greene, of West Troy, N. Y., for improvement in Coal Grates.

I claim the formation of a revolving cylinder grate by placing circular grate bars or flanges around a hollow cylinder, a draft of cold air being passed through the said hollow cylinder for the purpose of cooling the same, at the same time making it answer the purpose of a hot air chamber, substantially as above described.

To R. B. Goodyear, of Philadelphia, Pa., and Benj. Hirst, of Manyunch, Pa., (Assignors to Alfred Jenks, of Bridesburgh, Pa.,) for improvements in operating shuttle boxes in looms.

We claim, first, shifting a series of shuttle boxes, substantially as herein set forth, by means of a corresponding series of cams, acting through levers, or other means, severally brought into action at the required intervals by the pattern wheel face cam and spring or other equivalent devices, the whole arranged and operated substantially as described.

To F. H. Hamilton & Thos. Bullock, of Schenectady, N. Y., for improvement in Hemp Scutchers.

We claim the combination of the circular back or head, with the inclined knives or scrapers, and the hub and rest, substantially as is herein mentioned.

To John Kimball & H. Rice, of Concord, N. H., for improvement in connections of brakes with cars.

We claim the enclosure of said link or pin in a tube, coating or lining of india rubber or other elastic substance, and securing said rubber in a box or casing so as to confine the same permanently in such way as to allow the action of the brake or other machinery, without wear or friction, rattling or noise.

To R. Mareau, of Lawrenceville, Pa., for improvement in Washing Machines.

I claim the combination of a bed of rollers moving at different velocities, with a compressor for the purpose of washing, rinsing and wringing clothes, substantially as herein set forth.

To Wm. Maguire, of Cincinnati, Ohio, for improved blind shutter mover and fastener.

I claim the combination of the finger and wheels (two) with the gravitating catch, its recess, spring and hook, for moving, fastening and unfastening the blind.

To John Rogers, of Orleans Co., Vt., for improvements in the wheel and axle, stump extractor.

I claim the arrangement and combination of the axle or journals of the wheels, and the axle or journals of the windlass barrel of a stump extracting machine substantially in the manner and with respect to the bed frame and other parts of the machine, as herein before specified, the same being for the purpose essentially as above set forth.

To F. Slaughter & D. Perry, of Fredericksburgh, Va., for improvement in machinery for making Cotton Cordage.

We claim, first, the improved form of the nipper heads, when the nippers are combined therewith by means of the steadying pins, projecting from the inner edge of the nippers into guiding holes, in the nipper heads, and by suitable actuating springs, or their equivalents, substantially as represented and described; by means of which the nippers are prevented from becoming clogged and obstructed in their movements, and from pressing against the slivers by the accumulation of trashy matter about them.

2nd, In combination with the planetary motion of the series of flyers that receive and twist the cotton slivers and lay the threads formed thereby into a cord or rope as described, we claim the independently moving and self-adjusting compressing forming block, for giving a round and perfect form to the cord, or rope, (after its component threads have been laid together) substantially in the manner herein set forth.

To L. Stark, of Chicopee, Mass., for improvement in Branding Tools.

I claim the combination of the inner with the outer shell, substantially in the manner described, as applied to the branding tool.

ADDITIONAL IMPROVEMENTS.

To H. B. Masser, of Sunbury, Pa., for improvement in Ice Cream Freezers. Patented Dec. 12, 1848, improvement added Jan. 1, 1850.

I claim by this additional improvement, the spring blade or scraper, constructed and employed as above described.

RE-ISSUES.

To R. S. Stewart, (Executor of Geo. Law, deceased, Assignee of Moses Chase, deceased,) of Baltimore, Md., for improvement on the carding and spinning machines, denominated the Card Spinner, for manufacturing yarn from two or more different materials at the same time. Patented March 23, 1842. Re-issued Jan. 1, 1850.

I claim the combination by which the said composition thread or yarn is produced as above described, consisting of the delivering rollers, between which the covering material and the thread to be covered come in contact, as described, combined with the said doffer, the cylinder, the spindle for twisting the thread while it is in contact with the covering material, and the spool supplying the thread to be covered, all as described and represented in this specification, and the accompanying drawings or their mechanical equivalent in like combination and for the purpose set forth.

To Z. C. Robbins, of St. Louis, Mo., for improvement in Churns. Patented June 1, 1849. Re-issued Jan. 1, 1850.

I claim the series of parallel floats or beaters, formed and arranged within the agitator, substantially as above described, so that when their motion is reversed, their thick inclined rear edges will gather the butter into a roll in the centre of the agitator, substantially as herein set forth.

Report of the Secretary of the Interior about the Patent Office.--Extracts.

The Capitol and Patent Office Moulding Away.—The Capitol is a massive building, its walls are thick and maintain a certain equality of temperature, changing slowly with the changes in the temperature of the air. In a change from cold to warm, the walls remain for a time cold, and there is condensed upon them a portion of the moisture of the atmosphere, as upon a pitcher containing ice water in a sultry day. The stone being very porous, readily absorbs the moisture, and the natural cement which seems to be slowly soluble in water, is dissolved or otherwise loses its adhesive power, and the stones crumble to sand. A thick coat of paint, carefully applied from time to time has been resorted to to preserve, and no doubt tends to preserve the building; but unless some other and more permanent protection he resorted to, it is destined to early dilapidation. If left wholly unprotected from atmospheric action for one-fifth of the time that marble structures are known to have stood, this noble edifice would become a mound of sand.

The Treasury building and the Patent Office building are of the same material, and, having been in no manner protected show signs of decay. The cornice of the Treasury building, which exposes a heavy mass of stone to atmospheric action, begins to be moss-grown; and pieces of the molding of the Patent Office building have crumbled and fallen. Besides its tendency to disintegration on exposure, the stone in its best condition is weak, offering little more resistance to a crushing force than common brick. These buildings cannot, with all possible care, be long preserved by the means at present adopted. But if the stone as it stands in the walls could be rendered permanently and absolutely impermeable to moisture, the principal difficulty would be removed; and this may perhaps be done by some means known to the arts, or which may be discovered by experiment. For this purpose I would recommend that specimens of the stone be carefully analyzed, and that a series of experiments be tried, with a view of finding some chemical agent, the application of which will prevent its absorption of moisture, and thus strengthen and render it durable.

In consequence of the defective quality of this stone, and of reports from committees of Congress in 1837 and 1839 condemning it, I thought proper to direct that the wings of the Patent Office building should be constructed of a different material. After full consideration a white marble, from a quarry in Baltimore county, Maryland, was selected. It is a strong stone, resisting about three times as great a crushing force as the sandstone of the front building. All the practicable tests which were applied show it to be durable. It is a material of great beauty and it will be easier to make the front building correspond with it in color, than with the gray gneiss, or any other strong and durable stone of mixed or varied colors which could be readily procured. The work on the eastern wing is considerably advanced. Something has been done on the foundation of the western wing; but the whole appropriation has been expended, and it is important to the progress of the work that a further appropriation for its continuance be made at an early day.

The Patent Office Business.—The Patent Office marks the progress and collects the results of the inventive genius of the American people, is an object of increasing interest and importance. The skillful and ready application of the accumulated stores of human knowledge, especially in the natural sciences, to the wants and purposes of man, is a distinguishing characteristic of the present age. Not but that the discoveries of science are pressed as vigorously and with as great intellectual power in this as in the past but the present is especially marked by the practical application of everything known, and which becomes known, to the daily wants and uses and purposes of life.

In this noble struggle for the earliest attainment of the useful in the arts; this pressing forward to the amelioration of the condition of man, the increasing of his comforts and lessening his toils by the application of science to the improvement of his industrial pursuits, that country will be foremost in which enlightened mind is most generally and most immediately brought into contact with operative labor.

It is in that fortunate concurrence of pursuits, where the hours of labor in the workshop are made to alternate with those of study and research, that there are cultivated and matured minds like those of Franklin Rittenhouse, Watt, and Davy, rich in inductive science, and ready in its application to all that is useful or ennobling. Many of the best and ripest minds of our own country belong to this class of operative students, and have long been and are still devoting themselves with signal success to scientific discoveries and mechanical improvements and inventions.

There is, as a matter of course, among the inventions of the day, mixed with the well-directed and the useful, much that is wild and visionary, and therefore abortive, and sometimes, perhaps, the vague, and for the present useless foreshadowing of important future discoveries. But the aggregate value of the labor and study of the class of inventors is beyond all estimate. They have proved themselves benefactors to their country, and are entitled to the especial consideration and care of the Government. The Report of the Commissioner of Patents, which will be presented at an early day, will show a large surplus fund accumulated from their contributions, a part of which was appropriated at the last session of Congress "toward the erection of the wings of the Patent Office building" No part of this addition is considered necessary for the use of that office. Instead of thus directing this fund to a general purpose of the Government, it would seem but just to apply it as the Commissioner recommends, or in some other manner that the wisdom of Congress may suggest, for the encouragement of the inventive arts and the reward of successful inventors.

Agricultural Bureau and the Patent Office.—The agricultural interest stands first in importance in our country, and embodies within itself the principal elements of our national wealth and power; and it should be with us as it has been and is with all other prosperous civilized nations, a leading object of public care and patronage. The principal nations of Europe have their Agricultural Boards, known by various names under the direction of men of high scientific attainments, supported out of the revenues and connected with the administration of the Government. And, to borrow the language of the Father of his Country in his annual message: "This species of establishment contributes doubly to the increase of improvement, by stimulating to enterprise and experiment, and by drawing to a common center the results every where of individual skill and observation, and spreading them thence over the whole nation. Experience accordingly has shown that they are very cheap instruments of immense national benefit."

No direct aid has been extended by our Government to agriculture, except by the yearly collection and publication, through the Patent Office, of some agricultural experiments and statistics and recently the analysis of some soils and vegetable productions. The means thus applied, though useful in their results, are wholly inadequate.

To meet the great object fully, and give to this leading branch of American industry the aid which it so well merits, I respectfully suggest the establishment of an Agricultural Bureau, connected with this Department, but separated from the Patent Office. The expense would be small compared with the end to be accomplished.

[Here we have recommended the separation of the Agricultural from the Patent Department. Our readers will perceive that this is the doctrine we have advocated long ago; we are glad to see this movement. Our agricultural interests are great, to be sure, but the farmer and mechanic are twin brothers, and the interests of the one are no greater than those of the other. What was the cotton interest before the invention of the gin, and it is well known that a country may have climate and agricultural capacities of the highest order, and yet could produce but little—be very poor—for the want of good machines. We have complained that our farmers were treated well, at the expense of our inventors—and the Patent Office reports will show this to be true, and we know our farmers do not want this; but we find no fault with any body but our people themselves, if they do not send men to Congress to *do right*, they cannot be blamed for doing wrong. We trust that Congress will be more mindful of inventors in future, and pay some attention to the suggestions of the last Commissioner of Patents, Mr. Burke. There is one recommendation of Mr. Ewing, which is just and right, but it will be very difficult to work out, viz., "to reward successful inventors,"—that is a delicate question. We will wait for the Report of Mr. Ewbank; it will no doubt be an able and interesting one.

Congress, at its last session, on the motion of the Hon. J. W. Farrelly, chairman of the Committee on Patents of the House of Representatives, inserted in the civil and diplomatic appropriation bill the following item: "Towards the erection of the wings of the Patent Office building, according to the original plan,

fifty thousand dollars, to be paid out of the Patent fund." It was supposed at the time by the Committee on Patents, and the then Commissioner of Patents, Mr. Burke, that that sum would be sufficient to cover the amount of work which could be done by the next session, when Congress would of course make further appropriations—this sum being used up, we hope that Congress will make the appropriation at once and let the work go on—the money belongs to the inventors.

TO CORRESPONDENTS.

"Subscriber."—We published Roche's Receipt for baking, in Vol. 4, and spoke of it as you now do, at the time.

"J. C., of Baltimore."—It may be as well for you to wait until we get through with our history of Propellers. An oblique paddle is to be found patented by a Mr. Biron, in 1844.—You are right about improvements—we are not at the end. We like every correspondent to state clearly the object he designs to accomplish by his invention.

"E. S. H., of N. C."—We could not tell you about the price of the Sewing Machine to which you refer, (Wilson's.) It would no doubt answer well for the purpose mentioned by you. Mr. Wilson resides in North Adams, Mass.

"J. A. F., of Ala."—Your idea is correct about the rifle, only you must take into consideration the whole weight of the rifle. The principles are clearly illustrated and explained in the work on Mechanics, published by the Society for the Diffusion of Useful Knowledge. Your idea about the Re-action Water Wheel is just and correct, but is understood by Mr. Parker. Your views about the tube and elastic fluid are original to us.

"J. B., of Ind."—The part about the saw mills should have read "like ours." We have seen the ones you allude to in operation. Your idea about the Queen's Ware is correct, but it would never do, you see, to sell it as "King's Ware." We have seen the hydraulic blowpipe, but prefer the one that is in No. 3, Vol. 5, Sci. Am., to any other.

"C. B. H., of N. Y."—Your manner of constructing and combining the boiler, with the engine, to render it portable, appears to us to be new and useful; we know of no other having been constructed like it. We are of opinion that it is patentable.

"J. P., of Ct."—Six cubic feet per second will, on a 30 feet diameter overshot, give thirteen and a little more than a half horse power. For the purpose you desire, you cannot do with less than 14 cubic feet per second.

"J. K., of Pa."—Mr. Bishop, of Ovid, N. Y., patented a wheel which has two sets of buckets, to act as percussion and re-action, but they are placed above one another, and do not discharge at the centre, like yours, but as there are 30 patents on such wheels, it is doubtful if a patent could be secured.

"F. G. W., of Mass."—You will see that the answer has been given about the crank.

"J. A. G., of N. H."—The idea, but not the same way of carrying it out, has been presented to us before. We are of opinion that the plan would be difficult to carry out.

"J. M. H., of N. Y."—Your plan for the cider press could not be patented, because the same arrangement is used for like purposes in other kinds of presses.

"A. G., of Ohio."—We do not see how you could be refused a patent, for your idea is *new*, and it certainly is *useful*—the two essentials requisite to secure a patent.

"M. S., of Ohio."—We have examined your pump and our opinion is not favorable. In all cases we have never seen cog and rack gearing operate well in pumps.

"D. U., of Pa."—We are afraid that no patent except for an improvement on Lull's, could be granted, and then you could not use it except with the consent of the original patentee.

"D. Regr., of Pa."—Mr. Charles Pontez, of No. 71 Cedar street, N. Y., has an apparatus for boring wells, and will soon publish an advertisement. We could not give you the exact information. We do not think he has applied.

"E. C. J., of Mass."—We believe that a pa ent was applied for the same kind of ventilator, about ten years ago. We saw the model and are sure that the ideas embraced were the same as yours. We advise you not to spend any money on a patent.

"Mattewan."—You are right—the Franklin Journal copied it from the Century of Inventions. We shall refer to the work where there is a good treatise on the subject.

"A. C. J., of Me."—Your proposition is untenable; instead of gaining power by such a device there will be a serious loss. Experiments have demonstrated this point fully.

"F. K. B., of Ill"—In answer to yours of the 13th ult., we are sorry to say that Nos. 1 and 2, of Vol. 4, cannot be furnished; we have been out of these numbers for a long time. We make no charge for missing numbers when furnished to subscribers.

"S. H. J., of Mass."—We trust you may realize good results from your experiments, and hope to hear from you regarding them.

"H. D. S., of N. J."—Is informed that his plan for a city railway is not new: Mr. Meigs exhibited the same plan before the N. Y. Legislature at Albany, in 1840, since that time we have heard nothing of it.

"W. N., of Ill."—An engine of 8 horse power, complete, with cylinder boiler, will cost you about $800. $1 received and credited.

"E. V., of N. H."—The principles of your rotary are well understood by us, but they are not new. Some time last year a gentleman from New Jersey exhibited a drawing to us embracing the same ideas, and nearly the same in mechanical construction. We had no great confidence in its success, although it may be made to work.

"J. C. of Ky."—Mr. E. Barlow, of Marietta, Ohio, did obtain a patent for a pump on the 20th of Feb., 1848. Cannot now say whether such a gas as you speak of has been patented or not. Our opinion is that it has not. $2 received.

"F. H., of Boston."—We do not know that any varnish has ever been made, such as you speak of, to resist 200° degrees of heat; but should think that alum mixed with copal varnish could answer—phosphate of magnesia ought also to be good—both substances are good non-conductors, but of the two we should prefer alum, as it is more transparent.

"J. H. H., of Ala."—A small sized force and lifting pump would cost about $6, and lead pipe 20 cts. per foot. The smallest size made by B., are worth $25. We have sent you the back numbers called for.

"D. W. E., of N. Y."—The buckets of Mr. M.'s wheels were not governed by a rack and pinion, but changed their position by their own weight. There would be many objections to laying rails ten feet apart—six feet is sufficient for all purposes of speed, comfort, &c.

"A. W. D., of Ct."—Your plans for a horse power is very simple and practicable—but very old, no patent could be obtained for it; the only point of difference between yours and many others, is simply the application of the extra wheel and a change in form, showing no novel combination.

"J. L. of Ill."—Your favor was very acceptable; accept many thanks for the same Each subscriber has been entered as you request.

"S. J. L., of Ala."—We cannot furnish Vol. 3 of the Sci. Am., sorry to say so. Please thank the Editor of the Monitor, for his interest in circulating our Journal—accept the same also for yourself.

"N. A., of Me."—If you have a new improvement, you had better make a direct application for Letters Patent instead of applying for it as an improvement; we advise thus in consequence of the long time since your patent was granted. Gutta Percha has been used in this city between fabrics, to render them water proof. You may have a different way of effecting this result.

"J. D., of Va."—There was no mistake in regard to Ranlett's Architect, as you will see from the numbers sent, on the 3d inst. We enclosed them in two separate parcels, 5 numbers in each, and hope you will receive them in good time, condition etc.

"H. V., of N. Y."—If we hear of any such opportunity to purchase a boiler as you represent, we will inform you.

"J. J., of N. Y."—It does not appear that you have discovered any new principle in atmospheric churns. The same dash has been shown us within a few weeks, independant of this, the modifications are not patentable as we view them.

"J. S. D., of N. H."—Your Sci. Am., is sent from this office and will be enclosed with the club, when received, which we hope will be in a few days.

"W. B., of Mass."—We cannot express an opinion in relation to the practicability of your perpetual motion without the opportunity of examining one of them in operation. The combination is new to us; our curiosity is aroused in some measure to learn the result of your experiments although we have little confidence in such contrivances.

"H. K., of R. I."—We cannot object to your views in reference to "Alarms," but should like to hear the result of your experiments before expressing an opinion.

"D. G. S., of Pa."—The drawing of your Paddle Wheel has been examined. For one containing the same principles see No. 36 Vol. 4, "Sci. Am.," page 284.

H. T. B., of St. Louis; W. T. C., of N. C; M. S., of Ohio; G. K., of Pa.; J. A. C., of Pa.; W. D. M., of Miss.; M. L. S., of Pa.—Shall write you as soon as possible.

Money received on account of Patent Office business, since Dec. 27, 1849:—

S. K. G., of N. Y. $30; T. J., of Mass., $30; F. H. C., and others, of Me., $50; G. S., of Pa., $35; N. S. T., of N. J., $26; R. N. G., of Ill., $30; F. H. T., of Texas, $70, and 3 oz. of Gold Dust from F. G. U. H., of San Francisco—value $48.