

has come. Everywhere now we bring Monday, and in twenty-four hours by the chronometer after starting, we are in New York again, and find the merchants taking down their shutters, and the Monday newspapers telling us what has happened during our absence.

THE RIGHT TO FREE HIGHWAYS.

Why is it that in all the bills and bids we hear of for the construction of railroads or bridges in, above or under our streets and rivers, and among all the proposals or demands of compensation to the public for these lucrative public grants, the one thing we never hear of is that excessive profits shall be applied to the cheapening of fares for the million? Why is it that projectors propose to pay license fees into the public treasury, or to divide their profits with the school fund—interests already provided for and sure to be sustained—but shrink from the business-like and beneficent plan of reducing their fares and enlarging their traffic progressively, to any extent which will still yield lucrative returns.

Time is more than money: it is life: and rapid and cheap locomotion is life and money in a double sense, to the industrious and especially the industrious poor. They cannot always afford to pay twenty cents an hour for life; but it might and ought to be afforded them, though the medium of cheap and rapid locomotion, at five or ten cents an hour, with the blessings of pure air and moderate rents beside. The legislature which will provide for a system of rapid conveyance to and from and throughout this city and its suburbs, with a steady compulsory reduction of fares as fast and as far as consistent with a liberal but not inordinate profit and with due regard to safety and comfort, will do an amount of good and earn a grateful remembrance not often open to any body of men in the course of a century. Such a system, we believe, would speedily reduce all city fares to three cents, and all fares from the city to the remoter suburbs to six cents; while the improvements in economy of propulsion yet before us in the future may ultimately make one cent each a profitable fare for the daily moving millions of the city that is to be.

There can be no doubt that, on sound principles of political economy and philosophy, all private property in public highways ought eventually to be extinguished, and the use of them for public or private traffic thrown open on equal terms to all, taxed only with an equitable proportion of the cost of maintenance, in the same manner as common roads. The proper aim of a public work is not profit for a few, nor even wealth and honor to the whole, but to economize the time, strength and means of every individual: for of the gains of individuals all public wealth consists. In the infancy of our country, the resources of all its individuals were organized or incorporated in some sort for making the roads, bridges and other public works esteemed indispensable, and these became at once common property and free to all. A continuance of the same principle of action would have made the railroads, canals, bridges and colleges as free as the common roads and the common schools. In an ideal republic of good men, devoted to public rather than private good, this would be possible and incalculably profitable. But in a republic of men as they are, selfish, and only forced into union of interests and resources by extreme necessity, nearly all progress in public works and institutions is necessarily left dependent on selfishness, and in order to have better roads, bridges, etc., it is necessary to allow certain individuals enormous profit and wealth as an inducement to build them. Nevertheless an eventual return to the primitive ideal of free common wealth in all that is in its nature common to all, should be persistently kept in view. There is a proper and a practicable limit to all these public grants, which will be strictly insisted on by every legislator who is at all qualified by sense and honesty for his trust. The profit of the road company is to be regarded only as a means to the true end, public accommodation and economy, and is to be used only so far as necessary to attain that end; not carried so far as to interfere with it.

The present tendency toward a reabsorption of railroad, telegraph and bridge property by the public and for public benefit, through the agency of Government, is a hint which may yet become an assertion of the principle embodied in the limitations of every charter, that all such grants are but temporary concessions, for the ultimate benefit of the commonwealth, and that when they have served their purpose and repaid their beneficiaries, they must return as public property. We are not prepared to say that the resumption of these grants by Government, especially with its present corrupt and wasteful character, would be an improvement. Nor does it matter what any one may say about it; for these practical issues will work themselves out in their own time and way, little affected by theory and advice. There is one direction, however, in which we think we can discern a practical drift in the nature of things; and it is illustrated in the peculiar principle of the proposal on foot for a railroad from the Missouri river to Texas, to be open to all parties for their own care and locomotives, by payment of tolls, in the same manner as canals usually are. There are reasons enough why railroads should eventually go the way that most turnpikes have already gone, becoming first toll roads, and eventually, in a distant future of greater common knowledge and wealth, free public roads. Monopolies are at best necessary evils, and that temporarily, and their manifest destiny in every case is to go down before the paramount rights and interests of the whole, sooner or later, after they have served their temporary purpose.

In regard to the internal highways of a metropolis like this, we may assert as an axiom that there is no more reason

for making the rails, tunnels and bridges private property than for providing the pavements, sidewalks, street crossings, lamps, sewers, Croton water, public parks, etc. etc., on the same principle. The evils of the private property system as applied to this class of public works (to which may be added the gas service) are such as the community literally groan under, without a hope of remedy. On the other hand, the beneficent success of the system of public works under which the Croton Aqueduct and Central Park were constructed, is a standing refutation of all arguments against the extension of such a system to the construction of a complete and satisfactory network of free public ways beneath or above our present crowded thoroughfares and rivers, and the equitable resumption of the much-abused privileges of all our city railroad and ferry companies. We invoke the attention of the legislature to some statesman-like and far-reaching measure of democratic progress; for which the people can afford to wait a little in preference to riveting tighter the bonds of the present undemocratic monopoly system for the sake of temporary convenience.



ISSUED FROM THE U. S. PATENT OFFICE

FOR THE WEEK ENDING FEB. 12. 1867.

Reported Officially for the Scientific American.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:—

Table with 2 columns: Fee description and Amount. Includes items like 'On filing each caveat', 'On filing each application for a Patent', 'On issuing each original Patent', etc.

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$50 on application.

Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & Co., Publishers of the Scientific American, New York.

- 61,914.—ARM FOR CAR SEATS.—Albert L. Babcock, New Haven, Conn.
61,915.—DEVICE FOR OILING SPINDLES, TOP ROLLS, ETC., OF SPINNING AND OTHER MACHINERY.—Samuel H. Barber, East Greenwich, R. I.
61,916.—STEAM ENGINE.—John S. Barden, Providence, R. I.
61,917.—MODE OF TREATING SACCHARINE MATTERS.—Edward Beanes, London, England.
61,918.—APPARATUS FOR CARBURETING GAS.—W. W. Bierce, Cleveland, Ohio.
61,919.—BLOWER.—George W. Bigelow, New Haven, Conn.
61,920.—DIE FOR FORMING SPIKE HEADS.—Reuel Blackwood, Philadelphia, Pa.
61,921.—CAP FOR PRESERVING JARS.—Joseph Borden, Bridgeport, N. J., assignor to F. & J. Bodine, Philadelphia, Pa.
61,922.—COAL STOVE.—Albert Brown, Troy, N. Y.
61,923.—SASH-SPRING HOLDER.—Reuben F. Brown, Lewisburg, Pa.
61,924.—CLOTHES-LINE REEL AND HOUSE.—M. H. Card and A. Sallee, Fulton, Ill.
61,925.—CHURN.—William L. Card, Gardiner, Ill.
61,926.—SCREW GAGE.—J. S. Copeland, Bridgeport, Conn.
61,927.—HYMN AND TUNE BOOK.—Ebenezer Curtice, Yorkers, N. Y.
61,928.—CARPET STRETCHER.—George O. Dunlap, Chicopee, Mass.
61,929.—WRENCH.—Timothy Earle, Valley Falls, Smithfield, R. I.
61,930.—MACHINERY FOR DRYING PAPER IN PAPER-MAKING MACHINE.—Oliver Ellsworth (assignor to himself and Richard Smith), Boston, Mass.

- paper by the expansion and contraction or tension of the paper made and dried.
Also, in combination with the drying cylinders, the movable roller over which the paper passes, and the link and lever which connect it to the valve in the steam pipe which supplies the drying cylinders.
I claim making the link which connects the movable roller with the regulating valve detachable and connecting it to a roller held in place by the paper, by the mechanism described, or its equivalent, so that when the paper breaks and releases the roller, the connecting mechanism will detach the link so that it will cease to operate the valve in the steam pipe.
I also claim making the link, x x', adjustable in its length, by means of a slot and slide and screw, or other equivalent device.
61,931.—PREPARING SOLUBLE SILICA, AND IN APPLYING THE SAME TO USEFUL PURPOSES.—Anthony L. Fleury, Philadelphia, Pa. Antedated Dec. 28, 1866.
I claim the process, herein described, for preparing hydrated silica.
I also claim, as a new manufacture, hydrated silica, prepared substantially as described and set forth.
I further claim the improvement, herein described, in the manufacture of artificial stone, marble, paints, cements, and the like, substantially as described.
61,932.—STRAW CUTTER.—Warren Gale, Chicopee Falls, Mass.
First, I claim the pressure cylinder, A, constructed substantially as described, and geared to the cutting cylinder, B, in such a manner that the edge of the knife or knives shall, at the point of contact with the pressure cylinder, move at equal speed therewith, when the said pressure cylinder is constructed of disks of wood, rawhide, leather, or other similar material, not including metals of any kind, and is of full cylindrical form, substantially as set forth in the drawings.
Second, In combination with the above claim, sliding box, A, screws, E, E, spring, D, operating as described and for the purposes set forth.
61,933.—STRAW CUTTER.—W. Gale, Chicopee Falls, Mass. Antedated Aug. 12, 1866.
First, I claim the pressure cylinder, B, constructed as described, and having its entire periphery covered with a surface of soft metal, in combination with a knife-cylinder, provided with oblique or spiral knives, when the said cylinders are constructed and operated so that the edge of a knife, at the point of contact with the soft metal, shall move at the same speed as the pressure cylinder, substantially as and for the purposes specified.
Second, The sliding boxes, C, springs, S, and screws, E, in combination with the devices claimed in the first claim.
Third, The spiral knives, K, when secured in spiral grooves, h, in the cylinder, with the said cylinder is geared to the pressure cylinder, B, all constructed and arranged substantially as above described.
61,934.—MACHINE FOR STRAIGHTENING THE WEFT OR FIGURES OF TEXTILE FABRICS.—James Greenwood, Clinton, Mass.
I claim the machine, substantially as and for the purposes described, that is, as composed not only of a straightening roller, made expandable and contractible, as set forth, but of rollers, or their equivalents, for presenting the cloth to the action of such roller and moving such cloth with respect to it, substantially as explained.
I also claim the combination of a lever, or its equivalent, with the straightening roller, supported as described, and a combined with rollers, or their equivalents, for presenting a piece of cloth to the action of such roller, in the manner and for the purpose as set forth.
61,935.—BELT CLASP.—Philander Harlow, Hudson, Mass., assignor to himself and Asa F. Hall.
I claim the belt fastening, composed of the two plates, A and C, constructed and operating together in the manner and for the purpose substantially as described.
61,936.—EDIBLE PREPARATION FROM INDIAN CORN.—J. W. Haskins, Charlestown, Mass.
I claim the improved edible composition, as made of maize and gum acacia, or the same and one or more sweetening or flavoring matters or substances, substantially as set forth.
61,937.—STEERING APPARATUS.—Horatio F. Hicks, Grand View, Ind. Antedated Jan. 28, 1867.
First, I claim the arrangement of the pistons, S, S, rods, L, index, M, and pointers, d, substantially as and for the purpose specified.
Second, The arrangement of the levers, H, H, with levers, a, a, and rods, K, by means of which the boat may be steered from forward or aft, substantially as set forth.
61,938.—MACHINE GEARING.—Alonzo Hitchcock, New York City. Antedated Jan. 30, 1867.
I claim distributing the power around the shaft to be driven so that the tendency to displace the shaft on one side is counteracted by that on the other by the means and in the manner substantially as described.
61,939.—HARNES CLAMP.—Thomas B. Hodge, Francistown, N. H., assignor to himself and D. McCaine, Groton, Mass.
I claim the above described arrangement and combination of the clamp, D, the looped straps, C C, the bed piece, A, the rod, E, and the ratchet, F, and catch, H.
Also, the combination therewith of one or more of the auxiliary bed pieces, I, made substantially as described.
61,940.—SORGHUM STRIPPER.—A. D. Huff and L. D. Huff, Clinton, Iowa.
We claim the knife, C, provided with two cutting edges, a, e, the first for topping with an endwise thrust, and the other for cutting when drawn back, when combined with the forked guides, b, b, of the stock, A, and a solid curved stripper, F, arranged and operating substantially in the manner and for the purposes described.
61,941.—ANIMAL TRAP.—Henry Lee, Oberlin, Ohio.
I claim the fall, F, armed with teeth or points, F, standard, G, and yoke, H, in combination with the post, I, baited lever, D, and staple, I, as and for the purpose set forth.
61,942.—FENCE.—J. C. Leonard, Union City, Mich.
I claim the combination of inclined stakes or pickets with a horizontal supporting wire or rod when said stakes are slotted or kerfed to receive the wire, are prevented from spreading apart at their base, all substantially as herein described and illustrated.
61,943.—CULTIVATOR.—Ivory Lord and Sewall Woodman, Saco, Me.
First, We claim the shank, s, as shown in all the figures of the drawings, elongated, and perforated as described, and the brace, b, connected therewith.
Second, The attachment of the teeth by the rods or arms at a distance from the wood, as shown in Figs. 1 and 4, and secured in place by nuts and keys, as described.
Third, The mode of widening or narrowing the machine by sliding the teeth on the arms, r r h, in Fig. 4, and the combination of all, forming the cultivator as represented and described.
61,944.—HARVESTER.—James S. Marsh, Lewisburgh, Pa.
First, I claim casting the platform, C, in one piece with a tool box on its upper surface to give the required strength to this platform, and with recesses in its outer corner for gears, c2 c3, substantially as described and shown in Fig. 2 of the drawings.
Second, The double-hinged joint platform supported upon inner and outer casters, H, H, in combination with the adjustable transverse bar, D', and drag bar, E, substantially in the manner and for the purpose described.
Third, In combination with the hinged platform, caster wheels, H, H, suspending devices, D' and E, I claim the lever, F', and link, a', substantially as and for the purposes described.
Fourth, The combination of the lever, F2, with the hinged cutting apparatus and draft frame, transverse bar, D', link, d', drag bar, E, and transverse, M2, all arranged and operated substantially in the manner and for the purpose described.
Fifth, The combination and arrangement of the forward adjusting device, F, with the rear adjusting device, F2, each having a separate axis whereby the ordinary adjustment is retained and the adjustment of the pitch of the points of the guard fingers to suit the condition of the grass to be cut, substantially as described.
61,945.—COOKING STOVE.—James Marshall, New Orleans, La.
I claim the combination of the columns, b, and ledges, a, with the oven, A, hollow grate bars, the oven, B, a d openings, C, when covered by a cast cross bar, D, when these several parts are constructed and relatively arranged with respect to each other, as described for the purpose set forth.
61,946.—APPARATUS FOR EXTRACTING PARAFFINE, ETC., FROM OIL.—J. B. Meriam, Cleveland Ohio.
First, I claim the stanchions, G, pulleys, a, N and O, as arranged in combination with the frames, A, and pan, B, for the purpose and in the manner as set forth.
Second, The cross head, D, friction rollers, c', in combination with the stanchions, G, as arranged and operated by the link, K, and levers, L, for the purpose in the manner specified.
Third, The cylinder, P, as constructed with ribs or corrugations, b, on the inner surface, as and for the purpose specified.
Fourth, The follower, E, with the dependent arms, C, in combination with the cylinder, P, for the purpose and in the manner as substantially as described.
Fifth, The arrangements of the cases, S, bucket, U, pipe, T, in combination with the tank, Q, provided with the perforated bottom, K, as and for the purpose set forth.
Sixth, The cases, S, buckets, V, in combination with the tank, Q, and freezing mixture, for the purpose and in the manner as described.
61,947.—CASTER FRAME.—Frederick J. Miller, Brooklyn, N. Y.
First, I claim the caster frame whose base is provided with receptacles or compartments for salt, sugar, etc., when constructed in the manner described and shown.
Second, I claim the combination of the base, a, and the spring or holder, f, when applied to a caster frame, in substantially the manner described and shown.
61,948.—DUMPING WAGON.—George N. Munger, New Orleans, La.
I claim the frame work, D and E, which supports the body, the one part being fixed to the body and the other to the forward axle, and the two parts hinged together and combined with a device for securing the two axles in