

12FED.CAS.—46

Case No. 6,789.

HOWES ET AL. V. MCNEAL.

[15 Blatchf. 103; 3 Ban. & A. 376; 15 O. G. 608.]¹

Circuit Court, N. D. New York.

Aug. 8, 1878.

PATENTS—IMPROVEMENT IN GRAIN SEPARATORS AND
SCOURERS—ABANDONMENT TO PUBLIC—REJECTED APPLICATION.

1. The reissued letters patent granted to Simeon Howes, Gardner E. Throop, Alpheus Babcock, Norman Babcock and Carlos Ewell, March 5th, 1872, for an “improvement in grain

separators and scourers,” and extended for seven years from March 16th, 1872, the original patent having been granted to Howes and Throop, March 16th, 1858, are valid.

2. The first claim of said reissue, namely, “The combination with a suction fan, scouring mechanism, perforated inclosing shell, and outer tight casing, of a draught passage connecting the chamber outside of said perforated shell directly with the fan case, said passage being provided with auxiliary air inlets or openings, substantially as and for the purpose set forth,” is infringed by a machine which embodies in combination all the elements which make up such claim, they being combined in substantially the same way and for the same purpose, and having the same combined mode of operation as in the patent, although in the infringing machine the direction of the current is at first reversed, and the refuse is carried through an opening in the inner wall, and then through an auxiliary fan into another upward passage, to reach the main fan, instead of, as in the patent, being at first carried directly upward through the draught passage, to reach the main fan, and although, in the infringing machine, the increased supply of air is brought into the inside of the scourer, and through the perforations into the annular space between the scourer and the outer casing, instead of, as in the patent, coming through auxiliary air inlets in the bottom of the outer casing.
3. The application for the patent was filed in January, 1855, and rejected in March, 1855. In June, 1856, the inventors filed a paper stating that they withdrew their application, and requesting the return of \$20. The withdrawal was made for the purpose of filing a new application. The \$20 was refunded in June, 1856. At that time one of the inventors directed E., a patent agent, to prepare a new specification. E. neglected to do so till April, 1857. At that time a new specification was sworn to by both inventors, and sent to E. with his fee, and the patent office fee, and a power of attorney to E. The application was not filed by E. till February, 1858. The patent was issued in March, 1858. *Held*, that there was no abandonment of the invention to the public, and no consent to its use by the public for more than two years before February, 1858; and that there was, in judgment of law, a continuous application.

[Cited in *Lindsay v. Stein*, 10 Fed. 913.]

4. A rejected application for a patent is, of itself, no evidence of the existence of a perfected invention at the date it was filed, in the absence of any other evidence of the construction and operation at that date of a machine embodying the invention described in such application.
5. The second claim of said reissue, namely, “In a combined scourer and grain separator, the arrangement of two wind trunks side by side, in the manner shown and described, and for the purpose herein set forth,” is valid, although each of its two separators is, in and by itself, like a separator in a prior machine.

[In equity. Bill by Simeon Howes and others against Charles McNeal for infringement.]

Sprague & Hyatt, for plaintiffs.

William S. Farnell, for defendant.

BLATCHFORD, Circuit Judge. This suit is brought for the infringement of reissued letters patent [No. 4,793] granted to Simeon Howes, Gardner E. Throop, Alpheus Babcock, Norman Babcock and Carlos Ewell, March 5th, 1872, for an “improvement in grain separators and scourers,” and extended for 7 years from March 16th, 1872, the original patent [No. 19,637] having been granted to Howes and Throop March 16th, 1858. The specification of the reissue says: “The improvements relate to that class of combined machines which both scour the grain and also separate the heavy grain from the light grain

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and screenings, and the cheat and light grain from the dust, chaff and other refuse. The object of the invention is to effect a more perfect cleaning and separation of smut and other refuse from the full grains and from the cheat and lighter grains than has heretofore been accomplished, and at the same time render the machine more compact, simple and cheap in construction, and enable it to be more conveniently operated and regulated than other machines. The invention consists, first, in the combination with a suction fan, a perforated inclosing shell or cylinder, and an outer tight casing, of a draught passage leading directly from the inclosed space outside of the scouring shell to the fan case, and provided with auxiliary air inlets, whereby the particles of smut and other impurities, as they are detached from the grain and drawn or forced through the perforations of the cylinder, will be removed and conducted directly to the fan; second, in the combination with a grain scourer and suction fan, of two separating wind trunks, arranged side by side, one receiving the grain before it enters the scourer, and effecting what is termed a preliminary separation, and the other receiving the grain as it is discharged from the scourer, and effecting what is termed a subsequent separation, each wind trunk effecting three separations in a similar manner; first, of the full or plump grain; second, of cheat and light or shrunken grain; and third, of the smut, dust, chaff and other refuse, the products of the second separation from both wind trunks being discharged near each other on the same side of the machine, whilst the products of the third separation (the refuse material) are conducted from both wind trunks into the eye of the fan.” The drawings contain four figures. Figure 1 is a vertical section through the preliminary separating wind trunk. Figure 2 is a vertical section through the subsequent separating wind trunk. Figure 3 is a vertical cross-section, made at right angles to the sections in figures 1 and 2. Figure 4 is a horizontal section. The specification says: “Like letters of reference designate like parts in each of the figures. A is the frame of the combined machine; B, the perforated smutting or scouring shell or cylinder; and C, the surrounding case, leaving a space, D, between the two, into which air is admitted through narrow auxiliary openings, c, at the bottom. E is the central vertical shaft, to which is secured, within the scouring shell or cylinder, a beater cylinder, F, provided with radial wings or beaters, f. G are the fan blades, keyed to the upper end of the shaft; and H, the fan case, with an opening or eye, h, in

[Drawings of reissued letters patent No. 4,793, published from the records of the United States patent office.]

Fig. 1.

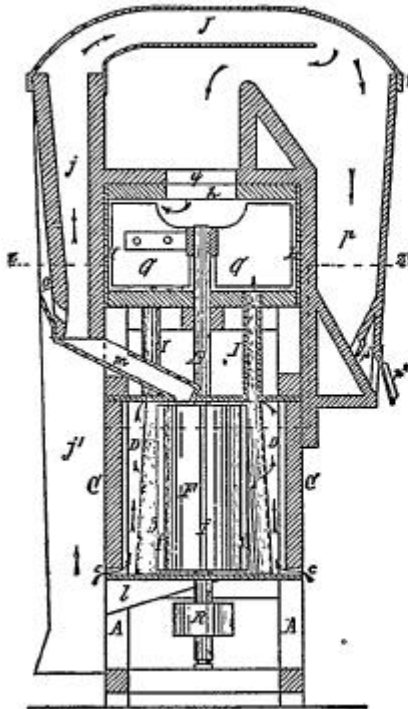


Fig. 2.

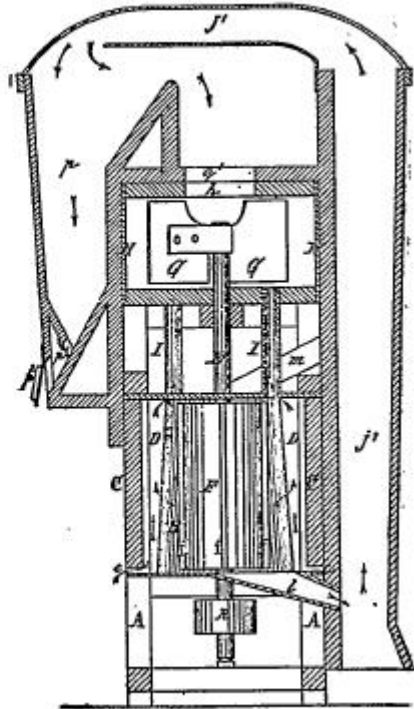


Fig. 3.

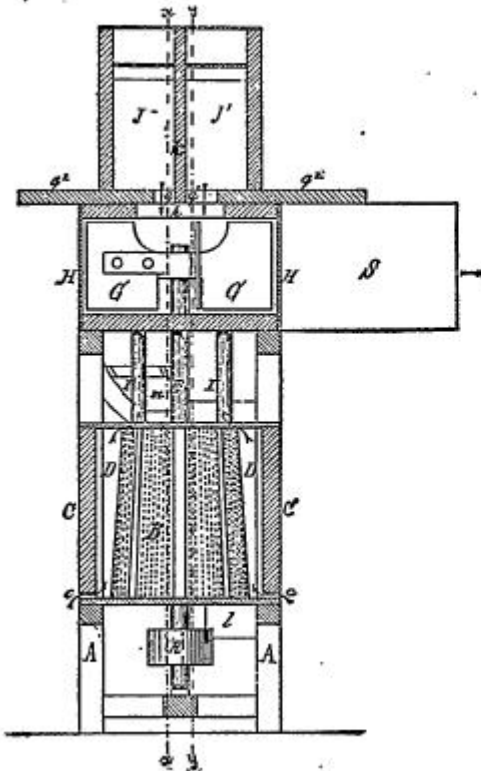
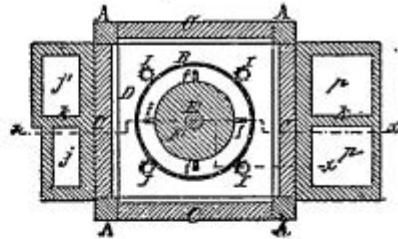


Fig. 4.



its top. II are air pipes or passages, which connect the chamber, D, outside of the scouring cylinder directly with the fart case. J is the preliminary and J' the subsequent separating wind trunk, arranged side by side and separated by a partition, k. They are similar in construction, except that the ascending leg, j, of the subsequent separator extends downward nearly to the floor, so as to permit the grain from the scouring cylinder to be discharged through a spout, l, into it, as shown in figure 2, while the ascending leg j of the preliminary separator terminates a little above the top of the scouring cylinder, and is provided with a spout, m, through which the grain, fed into the leg by means of a spout or hopper, o, is conducted into the top of the scouring cylinder. On the opposite side of the machine each of the wind trunks is constructed with dependent chess hoppers, p, each provided with two flap-valves, p^1 , p^2 , which are closed by atmospheric pressure, except when forced open by the weight of the accumulated grain therein. Both wind trunks communicate with the eye of the fan through openings q, q^1 , provided with slides, q^2 , for regulating the size of the passages and force of the air currents. Motion being communicated to the shaft E by means of the driving pulley R, exhaust currents of air through the wind trunks, chamber D, and passages I leading to the fan, are induced in the direction indicated by the darts. The grain fed through the hopper into the ascending leg of the wind trunk J is met by the upward current of air therein, which arrests the smut-balls, chaff, dust, and most of the chess and lighter grains, and carries them upward with it over to the opposite side of the machine, to the enlarged mouth of the chess hopper, into which the cheat and light grains descend by gravity, (owing to the reversal of the air current and the weakened draught occasioned by the enlargement of the hopper), while the smut-balls, chaff and other refuse take the reversed direction of the air current and are conducted through the opening q into the eye of the fan. The plump grain descends from the hopper o, through the spout m, into the scouring cylinder, where it is subjected to the action of the beaters and the inner surface of the perforated cylinder, which rubs off and detaches from the kernels the smut and other adherent matter, which is forced and drawn by the centrifugal action induced by the beaters and by the suction in the space D, through the perforations of the scouring cylinder, into the chamber D, and conducted thence through the passages I directly to the fan, without commingling with, or again coming in contact with, the scoured grain. This is of the greatest importance, as the pulverulent smut is of such a sticky and adhesive nature, that, if the kernels become besmeared with the same, it becomes practically impossible to remove it by any subsequent operation of the machine; and especially is this the case in damp weather and when the grain is not thoroughly dry. The auxiliary inlets c supply the requisite amount of air to the space D to create, in connection with the fan, the necessary draught. The scoured grain passes from the scouring cylinder, through the pipe or spout l, into the ascending leg of the spout J', near its lower end, where it is again met by an ascending current, which removes the light grains, chaff,

dust, &c., remaining therein, and separates and deposits the light grains on the opposite side of the machine, in the same manner as the preliminary separation in the wind trunk J was effected. The smut, dust and other refuse are ejected from the fan case into a trunk, S, by which it is conveyed out of the apartment or building, as required. The combination, broadly, in a smut machine and grain separator, of an air passage, connecting an inclosed space outside of a perforated scouring cylinder with a fan, is not claimed as new; neither is the combination of two wind trunks for effecting a preliminary and a subsequent separation in such combined machine, broadly claimed." The claims of the reissue are as follows: "1. The combination with a suction fan, scouring mechanism, perforated inclosing shell, and outer tight casing, of a draught passage connecting the chamber outside of said perforated shell directly with the fan case, said passage being provided with auxiliary air inlets or openings, substantially as and for the purpose set forth. 2. In a combined scourer and grain separator, the arrangement of two wind trunks side by side, in the manner shown and described, and for the purpose hereinbefore set forth."

The machine of the defendant has a suction fan arranged above the scourer; a scouring mechanism consisting of revolving wings or beaters attached to the same shaft to which the fan is attached; a perforated shell inclosing the revolving beaters; an outer tight casing surrounding the perforated shell, but so as to leave a space or chamber between such outer casing and such shell; a draught passage connecting such chamber directly with the fan case, in such manner that the smut and other adherent matter which pass through the perforations in such shell into such chamber, are conducted to the fan without commingling with, or again coming in contact with, the scoured grain; and auxiliary air inlets, in the shape of holes in the upper end of the scouring shell, instead of holes through the outer casing, as in the plaintiffs' machine. In the plaintiffs' machine, the refuse, after passing through the perforations, moves upward through the draught passage to reach the fan, and does not again come in contact with the grain, and the greater portion of the air which operates to make the necessary draught through the space outside of the scourer is that which comes through the auxiliary air inlets in the bottom of the outer tight case, and which inlets are at the end opposite the outlet. In

the defendant's machine, the refuse, after passing through the perforations, moves downward into an auxiliary fan, by which it is forced upward through a draught passage into the fan above the scourer, and does not, after leaving the perforations, again come in contact with the grain, and the greater portion of the air which operates to make the necessary draught through the space outside of the scourer is that which comes through the holes in the upper end of the scouring shell, and which holes are at the end opposite the outlet. This description of the defendant's machine shows plainly that it infringes the first claim of the plaintiffs' patent. It embodies, in combination, all the elements which make up such first claim, and they are combined in substantially the same way and for the same purpose, and they have the same combined mode of operation, as in the plaintiffs' machine. The differences are formal and not substantial, so far as regards the plaintiffs' combination. Reversing the direction of the current at first, and carrying the refuse out of the chamber through an opening in the inner wall, and then through the auxiliary fan, into another upward passage, to reach the main fan, and bringing the increased supply of air into the inside of the scourer, and through the perforations into the annular space, is no change from the principle of the construction and operation of the plaintiffs' combination. In both machines, the auxiliary air inlets are at the farthest point from the outlet into the draught passage which leads to the fan. In both, the refuse is discharged through the perforations, and then, by a current induced in the annular space, is carried to the fan without again coming in contact with the grain. If there be any advantage or improvement in the modifications introduced by the defendant, still they are subordinate to, and embody and infringe, the plaintiffs' combination. Nor is this view affected by the fact that the defendant's beaters are not attached to a solid cylinder, as are the plaintiffs', and that by reason of their arrangement, and of other minor details, the grain may be more perfectly scoured in the defendant's machine than in the plaintiffs'.

In regard to the second claim of the plain-stiffs' patent, the defendant's machine has two wind trunks arranged side by side, each provided with a separate valve or regulator, and each effecting the three separations set forth in the plaintiffs' specification, namely, first, of full grain, second, of cheat and light grain, and, third, of refuse, the refuse being conducted into the eye of a suction fan, which is arranged above and on the same shaft with a scourer, both wind trunks being connected with the fan, and the scourer having a perforated case which operates to separate the greater portion of the refuse as it is detached from the grain, and the arrangement of the wind trunks, in the combined scourer and grain separator, is substantially the same, and operates in substantially the same manner, and accomplishes substantially the same results as the arrangement covered by the second claim of the plaintiffs' patent. The difference in shape of the chess hopper in the defendant's wind trunk, the projecting forward and curving downward into the chess hopper, of the bottom board of the horizontal part of the wind trunk, in the

defendant's machine, the regulating valve in the wind trunk, in the defendant's machine, and other minor modifications which are alleged to effect a more perfect separation in the defendant's machine, if improvements, do not relieve the arrangement from the charge of infringement.

Howes and Throop, on the 27th of January, 1855, filed in the patent office an application for a patent for an "improved separator and smut machine." The application was sworn to by Howes on the 2d of January, 1855, and by Throop on the 22d of January, 1855. The model was filed on the 28th of February, 1855. The drawings accompanying this application were, in all substantial and material particulars, like the drawings of the reissued patent sued on, except that there was no drawing, figure 4, of a horizontal section. The specification in such application states the invention as follows: "This invention relates to a new and improved separator and smut machine, and consists, 1st, in a peculiar arrangement of the blast spouts, as will be hereafter fully shown, whereby the grain is subjected to two blasts, one before entering the scourer or smut mill, and the other after leaving the scourer or smut mill, and all dust, chaff, smut, straw, chaff and imperfect or light grain is thoroughly separated from the sound or heavy grain, and the chaff and imperfect grain is also separated from the dust and trash. 2d. The invention consists in the peculiar arrangement of the fan in relation with the blast spouts and scourer or smut mill, or the box which incloses it, as will be hereafter fully shown, whereby all the dust that enters the machine is drawn into the fan box and ejected therefrom, thus keeping the grain, both the sound and the light, perfectly clean and free from dust." The specification describes, and the drawings show, the perforated shell; the cylinder within the shell, with beaters on it; the fan, in a case and with a discharge spout; the passages leading from the upper part of the chamber outside of the perforated shell to the lower part of the fan case; the curved trunk, divided by a vertical partition into two compartments, which communicate with the fan case; the slides to regulate the force of the blast; the horizontal bottom plate in the wind trunk; the spout leading into the inside of the scourer; the spout leading out of the scourer; the close outer case around the shell; and the auxiliary air inlets through the bottom of the

outer case. The specification states, that the grain to be cleansed and separated passes through a hopper and a spout into the scourer; that, as the fan rotates, a blast passes upward between the shell and the outer case, and through the draught passages into the fan case, in consequence of a vacuum being formed in the fan case by the rotation of the fan, the air entering through the apertures at the lower part of the outer case; that a blast is also generated by the same cause in the wind trunks; that, consequently, as the grain passes to the scourer, it is subjected to a blast, and all loose dirt and smut, straw and light ches passes up the first wind trunk, and the dirt, smut and light particles are drawn into the fan case through the opening at its eye, while ches, being heavier, is not controlled by the blast and passes downward in the first wind trunk and out at its lower end; that the grain is thus separated from loose impurities or foreign matter before entering the scourer, and, in passing through the scourer, all smut is broken or pulverized, and dirt, &c., is thoroughly removed from the grain and passes through the perforations in the shell into the space between the shell and the outer case, whence it is drawn up into the fan case and ejected through the discharge spout; and that the grain passes from the lower end of the scourer into a spout by which it is conducted into the lower end of the second wind trunk, the heavy and sound grain falling from the spout while the smut, dirt, &c., which was scoured from the grain while passing through the scourer and escaped through the perforations in the shell, is carried up the second wind trunk, drawn into the fan case through its eye, and ejected through the discharge spout. This specification calls the tight case which surrounds the shell, a box. The draught passages or air pipes which pass from the chamber outside of the scourer to the fan case, it calls spouts. The compartments in the wind trunks it calls blast spouts. It proceeds: "Thus it will be seen that the grain may be thoroughly cleansed and separated, the sound grain and ches being kept distinct or separate from each other, and the dirt, smut, &c., being removed from both." The inventors, in the claim, claim, first, the trunk, divided into two compartments or spouts, and arranged specifically as shown, with the fan, so that the grain will be subjected to two blasts, generated by one and the same fan, to one before entering the scourer and to the other after leaving the scourer, "and the ches or light grain separated from each other, and the dust, smut, etc., from both," the dust being drawn into the fan case and ejected therefrom; second, connecting the fan case with the box which contains the scourer, and also connecting the fan case with the two blast spouts, as shown and described, "whereby all dust that enters the machine is drawn into and ejected from the fan case, and thereby prevented from mixing with the cleansed grain." On the 8th of March, 1855, this application was rejected by the patent office. The letter of rejection said: "For substantially the same arrangement of devices, see the patent grain scourer and separator of Benjamin Rutter and Henry Rouzer, October 4th, 1853." On the 11th of June, 1856, Howes and Throop filed in the patent office a paper signed by them, in which they

said, addressing the commissioner of patents: "We hereby withdraw our application for a patent for improvements in grain separators, now in your office, and request that twenty dollars may be returned to us by mail, agreeably to the provision of the act of congress, authorizing such withdrawal." The paper also requested that the money should be sent to the address of Throop, at Chicago. It was sent to him by the patent office, by mail, on the 11th of June, 1856. The withdrawal was made for the purpose of filing a new application. The application of 1835 was made through Munn & Co., as agents. In the forepart of June, 1856, Howes went to Washington city to look after the matter. He there consulted Mr. Everett, a patent agent, who examined as to the cause of the rejection, and advised that the application should be withdrawn and a new one made. Howes directed Everett to have the application withdrawn, and to prepare a new specification and send it, with the drawings, to Throop and himself. Everett told Howes at that time that the drawings and model used in the application of 1855 could be used, or had better be used, in making the new application. In consequence of neglect on the part of Everett, arising from a difficulty between himself and his partner, or otherwise, the new specification was not sent to Howes and Throop, to be sworn to, until April, 1857. It was sworn to by Throop on the 16th of April, 1857, and by Howes on the 23d of April, 1857, and Howes then sent it by mail to Everett, at Washington, with the money for his fee and the patent office fee, and a petition signed by both of them, and a power of attorney signed by both of them, appointing Everett their attorney and agent to alter or modify the specification and drawings in their application as he might deem expedient, and to withdraw the application should it be deemed advisable. Notwithstanding this, Everett did not file the application. Consequently, in the latter part of February, 1858, Throop went to Washington and saw Everett, and complained to him of the delay, and received as an excuse a difficulty between Everett and his partner. While Throop remained in Washington the application was filed, on the 26th of February, 1858, the model of the application of 1853 being used as the model for the new application.

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On this application a patent was issued March 16th, 1858, a full fee of \$30 having been paid to the patent office. The drawings of this patent were substantially identical with the drawings of the original application of 1855, and were, in all substantial and material particulars, like the drawings of the reissue, except that there was no drawing, figure 4, of a horizontal section. The specification says: "Our improvements relate to that class of machines which clean the grain, and also separate the heavy grain from light grain, cheat, &c., and remove from the various qualities the dust and other refuse, and thereby utilize much which would otherwise be wasted. The machine is constructed and arranged as follows: A is a rectangular frame, having a box or casing, B, within it, which surrounds a perforated concave or shell C, which is permanently secured concentric with the vertical shaft E and the cylinder D. This cylinder is fixed to the shaft B, and is provided with several vertical radial projections or beaters a. The sides of the box B do not extend to the bottom board upon which the shell C is placed, but leave narrow openings c^1 , for purposes to be hereinafter explained. The revolving shaft E is placed in the centre of the machine, supported in a box at c and by a step b. It receives its motion through the driving pulley P to which the power is applied. Above the box B are placed two or more tubes, which open a direct communication with the fan case G and the space in the box B outside of the shell C. Within the case G, upon the upper end of the shaft E, is placed a suction fan F, composed of any suitable number of leaves connected by arms with the shaft E. J is a curved trunk or flue which extends over the fan case G. This is divided into two compartments, K and K^1 by a vertical partition L. The upper part of the fan case G communicates with both compartments by openings shown at a^1 , where two slides, a^2 , are placed to regulate the size of the opening. It has also an outlet H, which may be extended to another apartment, or to the outside of the building, to convey the dust and refuse ejected from the fan case. M is a horizontal plate which extends over the fan case G, within the trunk J, and in both compartments K and K^1 . K extends downwards at one side of A nearly to the floor, while the opposite side extends downwards about half way. K^1 terminates at an inclined spout N, which leads into the space between the cylinder D and the shell C, and conducts the grain to be operated upon, from the hopper O. Q is an inclined spout leading from the bottom of the concave shell C to the lower part of the compartment or blast spout K, which is gradually narrowed down to that point. The shaft E, being put in motion in the proper direction and at the required speed, the fan produces powerful currents of air in the direction of the darts 1. The wheat or other grain passing from the hopper through the spout N is subjected to the action of the upward current in K^1 . This takes up smut-balls, chaff, light grains, chaff, dust, &c., &c., and carries them over the plate M. The dust and light refuse passes in the direction of the darts 2 into the

fan, whence it is ejected through the outlet passage H, while the heavier portion descends by its gravity and passes out at the valve V, which only opens when the accumulation overcomes the atmospheric pressure, which tends to keep it closed. The heavy but uncleaned grain passes, by its gravity, to the top of the revolving cylinder D, which distributes it equally by centrifugal force, as it falls into the mill. It is then subjected to the action of the beaters, which, by their rapid motion, not only rub the grains against each other and the perforated shell, but generate outward currents through the perforations, driving the smut and dust through into the space between the shell and its casing B, whence it is immediately taken up through the tubes I into the fan case and discharged through H, without again mixing with the cleaned wheat. It is highly important that the smut should not again come into contact with the grain after it has been cleaned or scoured, as much of it would again adhere, especially in damp weather, or if the grain is not thoroughly dry. The openings c^1 admit a supply of air to create, in connection with the fan, the necessary draft. The cleaned grain passes out of the mill through the inclined spout Q into the blast spout K, where it is met by an upward draft, which carries up all light stuff and refuse which may have escaped the previous operations, and treats it in a similar manner to that which passes through compartment K^1 . The claim is as follows: "The combination of the tubes I and the outer casing B, when so constructed and arranged in connection with the fan case G, as to prevent the smut, &c., from coming in contact with the cleaned grain, as herein specified."

The patent of October 4th, 1853, to Rutter and Rouzer, referred to by the patent office as the ground for the rejection of the application made by Howes and Throop in 1855, was a patent for a "machine for cleaning and separating grain." The specification of that patent says: "The objects of our invention are to thoroughly cleanse wheat, or other grain, of all impurities, and also to separate the imperfect grains (which are of some use for feed, &c.) from both the good grain and from the dirt. In the accompanying drawings fig. 1 is a vertical section through the feed tube, &c. Fig. 2 is a vertical section through the discharging spouts. Fig. 3 is a horizontal section through the scouring cylinder and concave, a is a suitable frame, b is the feed aperture

opening into a tube c, whose bottom is furnished with a funnel g, leading into a spout or hopper d. A directing board e, reaching down obliquely from the top of the tube, conducts the grain into the funnel g, while at the same time the straw, chaff and loose dust are driven up through the tubes on the other side of the board e, and ejected as hereafter described. The grain from the tube falls first upon a curved and obliquely placed screen f, along which it spreads in descending, so as to give the greatest possible scope to the atmospheric action just spoken of. From the lower edge of the screen, the grain drops through the funnel g into the sloping hopper d, which conducts it through the floor h on to the top of a conical scouring drum i, and revolving within a case or shell k, fluted or corrugated as represented in the horizontal section. The grain, in descending through the annular space between the drum and case, is violently beaten between the wings j on the drum and the ridges l on the inner side of the shell. From the bottom of this space, the grain and dust, now effectually loosened and disengaged from each other, drop together into the lower end of the spout m, where, meeting with a sharp upward draft of air, the dust is at once drawn up through the spout, by the action of the fan hereafter explained and the grain is scattered on a curved and sloping screen n similar to the one f at the entrance passage, and for a similar object, with reference, in this instance, to dust and light grain, rather than chaff. From this screen the good grain finally escapes at the lower entrance of the spout, which is narrowed just enough to give the rapidity or force of draft requisite to carry up the light grain and dust but to allow the good grain to descend. The draft is produced by a fan o, of usual construction, revolving within a case p. This fan case communicates at its centre with an upper chamber q. This chamber has communication both with the entrance tube e and with the draft spout m; with the former by the aperture r, and with the latter by the circuitous channel s, t, u. The communication with the entrance tube is capable of being either partially or entirely closed by a damper v, according to the condition of the material being operated on, with respect to the quantity of chaff and other loose matters which it is desired to eject in the first instance, and also according to the amount of draft which is needed at the bottom of the draft spout, to carry up the light grain. These objects are still further facilitated by means of another damper w, by which the opening into the fan case may be enlarged or diminished, but never entirely closed. The draft spout m is continued along the top of the machine in the form of a channel s, whence the passage comes downwards and backwards at b, and the lighter particles, such as dust, &c., pass through the throat u and are drawn into and discharged by the fan, while the light grain, descending by its greater specific gravity, comes in contact with the ledge x, and, sliding down the incline y, escapes through the spout z. This spout is provided with two valves 1, 2 (one near its entrance and the other near its discharging end) for the purpose, of modulating the discharge of the contents.”

Howes and Throop, during the latter part of the year 1853, became agents, jointly, for the sale of territory and machines under the Rutter and Rouzer patent. The claim of that patent was this: "The narrowing of the spout near the grain-discharge m, in combination with the curved passages s, t, u and z, which receive and discharge at their respective apertures the light grain and trash taken from the grain-discharge aperture m." As such agents, they, in January, 1854, sold the right to the Rutter and Rouzer patent, for 15 counties in the western part of New York, to B. Montgomery & Sons, of Silver Creek, N. Y., for \$2,000. Pursuing their business of selling Rutter and Rouzer machines, they put up one of the machines on trial in a mill in Water-town, N. Y., and, finding defects in its working, they invented jointly and embodied in it, in actual working by early in June, 1854, the improvements claimed in the reissue. In the same month Throop went to Chicago and engaged in making machines with such improvements, and he continued to do so there and elsewhere until after the reissue was obtained. In the summer of 1854 Howes induced B. Montgomery & Sons to add such improvements to the Rutter and Rouzer machines which they were building. For two years from the spring of 1856 Howes was a partner with the members of the firm of E. Montgomery & Sons, under the name of Montgomery & Co., in making the machines with such improvements. He then sold out his interest to the other partners, and made an agreement with them, in pursuance of which, after the patent of March, 1858, was obtained, he assigned to them all his interest in it. Since that time Montgomery & Co., and their successors, Howes, Babcock & Co., the latter firm composed of the plaintiffs in this suit, of whom the patentee Howes is one, have continued to make and sell machines embodying the improvements patented in the reissue.

The Rutter and Rouzer machine was intended to make three separations—into good grain, imperfect grain, and refuse. It had a preliminary separator, in which, by the action of a fan, as the grain entered the machine and before it reached the scourer, the straw, chaff and loose dust were blown out of it to some extent, while the grain descended by its greater weight, the refuse passing off through the eye of the fan. In the scourer the dust was detached

from the grain by wings on a revolving drum, the shell or exterior case being fluted. The grain and detached dust fell together through a spout into the lower part of a subsequent separator, which was a wind trunk acted upon by the fan before named, and in which there was an upward draught, the effect of which was to draw up dust and light grain, and all but good grain, the latter going by gravity out of the machine. The arrangement of the upper part of the interior of the subsequent separator was such, that the action of the fan drew into its eye the dust and lighter particles, not grain, while the light grain passed entirely over and came out on the other side. This machine had no perforated shell surrounding the scouring drum. The smut and refuse which, was detached from the grain in the scourer, passed out with it through one and the same spout in the bottom of the scourer, and was free to attach itself again to the grain. It was clearly a valuable improvement to perforate with holes the shell surrounding the revolving beating instrument in the scourer, and cause, by the action of the fan, the matter detached by the scourer to pass through such holes. To do this required that there should be a tight case around the shell, and that the space between the two should be connected with the fan in such manner, by a draught passage, that the detached matter in such space would pass out through the fan, and not again come in contact with the grain. To effect this result satisfactorily, the auxiliary air inlets were necessary. It was, also, undoubtedly, an advantage to make the preliminary separator alike in construction and arrangement to the subsequent separator in the Rutter and Rouzer machine. This is what Howes and Throop did. They placed side by side two separators or wind trunks, each like the subsequent separator in the Rutter and Rouzer machine.

The defence of a want of novelty in the inventions covered by the reissued patent of the plaintiffs is set up. In order properly to consider this question, it must be determined what is the proper construction of the claims.

The specification, in respect to the first claim, disclaims the mere combination, broadly, in a smut machine and grain separator, of an air passage connecting an in-closed space outside of a perforated scouring cylinder, with a fan. But the first claim is a claim to the combination with a suction fan, scouring mechanism, perforated inclosing shell and outer tight casing, of a draught passage connecting the chamber outside of said perforated shell directly with the fan case, said passage being provided with auxiliary air inlets or openings, when the combination is arranged substantially as is described in the specification, and for the purpose set forth therein. The specification requires that the arrangement shall be such that the particles of smut and other impurities, after they are detached from the grain and drawn or forced through the perforations of the cylinder, will be removed and conducted to the fan, without commingling with or again coming in contact with the scoured grain. To effect this result requires an adequate arrangement of the air passages which furnish air for the blast through the draught passage to the fan, so that there may be a

sufficient supply of air for the purpose. It is plain that no such combination is shown in the Rutter and Rouzer patent. It shows no perforated shell surrounded by an outer tight casing, and no draught passage such as the plaintiffs', and what is scoured off from the grain in the scourer leaves the scourer with the grain and not through a separate exit for itself, and, therefore, has an opportunity to re-attach itself to the grain.

The patent granted to Nelson Platt, May 20th, 1851, for "improvements in smut machines," is adduced to destroy the novelty of the plaintiffs' first claim. The machine shown in that patent appears to be a very complicated arrangement, and there is no evidence to show that it ever was or could be a practically useful machine. It has, abstractly, a suction fan, a scouring mechanism, a perforated shell, an outer tight casing, a draught passage connecting the chamber outside of such shell with the fan case, and air inlets for supplying air to such chamber and such draught passage. But these various parts are combined and arranged and operate in a manner not substantially the same as the combination in the first claim of the plaintiffs' patent, and for a purpose not substantially the same. The operation of the Platt machine is not such as to prevent the smut and dust which have been scoured from the grain from again coming in contact with the grain. On the contrary, in the Platt machine, smut and dust which have been detached come in contact with the grain.

The patents granted to Bedwell in October, 1854, to Horton in November, 1856, and to Canby in May, 1857, are subsequent in time to the date of the inventions of Howes and Throop, and the inventions shown in the patents granted to Bone in June, 1854, and to Sanders in June, 1854, are not shown to have been made and perfected earlier than the date at which the inventions of Howes and Throop were perfected. No earlier dates than the dates of those patents are assigned to the inventions described in them, even if those inventions could be regarded as the same as those of Howes and Throop. The rejected applications for patents put in evidence are, of themselves, no evidence of the existence of perfected inventions at the dates of the filing of the applications, in the absence of any other evidence of the construction and operation at those dates of

machines embodying the inventions described in such applications, and those dates are dates subsequent to the date of the perfecting of the inventions of Howes and Throop.

As to the second claim of the plaintiffs' patent, the specification of the reissue states that the patentees do not claim broadly the combination of two wind trunks for effecting a preliminary and a subsequent separation in a machine composed of a smut machine and a grain separator combined. The Rutter and Rouzer machine was a combined smut machine and grain separator, and it had two wind trunks, which effected a preliminary and a subsequent separation. But the second claim of the plaintiffs' reissue states that they claim, "in a combined scourer and grain separator, the arrangement of two wind trunks side by side, in the manner shown and described, and for the purpose hereinbefore set forth." It is true that the preliminary separator in the plaintiffs' machine is, in and by itself, like the subsequent separator in the Rutter and Rouzer machine, and the subsequent separator in the plaintiffs' machine is, in and by itself, like the subsequent separator in the Rutter and Rouzer machine. But the arrangement and operation of the two wind trunks, in respect to the material operated on, in connection with and in reference to the grain scourer, involve novelty over and beyond anything that is found in the Rutter and Rouzer machine. The invention covered by the second claim of the plaintiffs' patent cannot be regarded as a mere duplication of the subsequent separator in the Rutter and Rouzer machine. The claim is one to the arrangement side by side, of two wind trunks, such as those described, in connection with a scourer, substantially as described, in such manner that there will be a preliminary separation into three parts of the material fed into the first wind trunk, substantially in the manner and by the means described, with means of regulating the air current in such first wind trunk by an independent damper, and so that the grain will then pass through the scourer and enter the second wind trunk, and be there operated upon for a separation of the material into three parts, substantially in the manner and by the means described, with means of regulating the air current in such second wind trunk by an independent damper, the air currents being produced by a suction fan arranged on the same shaft as, and above, the revolving beaters in the scourer, and with a divided eye into which the two wind trunks discharge. On this construction of the claim, it is not anticipated by what is found in the Rutter and Rouzer patent, or in the Platt patent, or in any of the other patents or applications adduced by the defendant.

In so far as the third claim in the application for a patent filed by Montgomery and Howes in January, 1857, covers anything now claimed by Howes and Throop to have been invented by them previously to that application, it is quite apparent, on the whole evidence, that such third claim was inadvertently made, and without any design on the part of either Montgomery or Howes to make it, and without any consciousness on the part of either of them that it was made.

The construction and arrangement covered by the claims of the reissued patent are fully shown and described in the specification and drawings of the original application, and in those of the original patent. This appears clearly by a perusal of those papers, as above set forth. Therefore, there is no foundation for the assertion that the reissued patent is invalid because it claims what is not shown or described in the original patent.

It is contended for the defendant, that Howes and Throop, by withdrawing, in June, 1856, the application which they had before made, and, by not filing a new application until February, 1858, abandoned their invention to the public, and consented to its use by the public for more than two years before February, 1858; and that, therefore, their patent of March, 1858, was invalid. But the facts shown, as before recited, demonstrate that there was no abandonment and no consent to public use. There was, in judgment of law, a continuous application. The direction to withdraw was accompanied by a direction to renew. The old model was used, as previously filed, for the new application. The party cannot be made to suffer for the neglect of his attorney. There is no evidence of any intention to abandon, or of any act of abandonment, or of any declaration of abandonment, or of any consent to, or allowance, of public use, or of any such laches on the part of the patentees, as can amount to an abandonment, at any time prior to February, 1858. The case falls, I think, within the principles determined in *Godfrey v. Eames*, 1 Wall. [68 U. S.] 317, and *Smith v. Goodyear Dental Vulcanite Co.*, 93 U. S. 486.

The evidence satisfactorily establishes that the defendant was engaged in manufacturing, prior to the bringing of this suit, machines embodying the patented inventions.

There must be the usual decree for the plaintiffs for an injunction as to both claims of the patent and for an account of profits.

[For another case involving this patent, see *Howes v. McNeal*, 4 Fed. 151.]

¹ [Reported by Hon. Samuel Blatchford, Circuit Judge; reprinted in 3 Ban. & A. 376, and here republished by permission. 15 O. G. 608, contains, only a partial report.]