The Corn Planter Patent

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Appellant : The Corn Planter Patent

Judgement :

The Corn Planter Patent - 90 U.S. 181 (1874)
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The Corn Planter Patent

90 U.S. (23 Wall.) 181

APPEALS FROM THE CIRCUIT COURT

FOR THE NORTHERN DISTRICT OF ILLINOIS

SYLLABUS

1. Five reissues were granted on a surrendered patent, granted originally in 1853 to G. W. Brown, for improvements in corn planting machines. On two bills, one against Bergen & Sisson and the other against Selby *et al.* For infringement, four of these reissues were sustained and one declared void for want of novelty.

2. Out of five reissues granted on a surrender of a patent granted in 1855, four were declared invalid for want of patentable novelty, and one reissue, No. 1095, was declared valid.

3. An invention described in an application for a patent filed in the Patent Office is not of itself a bar to a subsequent patent therefor to another. Such an application may have a bearing on the question of the defense

of prior invention or discovery, but will not of *itself* take such prior invention or discovery out of the category of unsuccessful experiments.

4. The several reissues, Nos. 1036, 1038, and 1039, held to be good as being for things contained within the machines and apparatus described in

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the original patents, although not claimed therein. Any question of fraud in obtaining these reissues is to be regarded as settled by the act of the Commissioner of Patents in granting them.

5. Reissues Nos. 1036, 1038, and 1039 are not obnoxious to the objection that they are for substantially the same combination, and therefore not for distinct parts of the original machine.

6. The use of the words "substantially as and for the purposes set forth" in a claim throws it back to the specification for qualification of words otherwise general.

7. The claim of Reissue No. 1036, thus construed, held to be valid and to he for two separate frames -- one having two wheels and the other two runners.

8. The defendants held to have infringed it.

9. Reissue No. 1037 declared void for want of novelty.

10. Reissue No. 1038 held to cover the combination of two separate frames, one having two wheels and the other two runners, *when they are combined together by a hinged joint.*

11. The defendants held to have infringed this claim, although in one, Selby's machine, the hinge is located at a different part of the machine, *the office, purpose, operation, and effect being the same.* A change a little more or less backward or forward held not to change the substantial identity.

12. A patentee by his claim as to what he regards as news by necessary implication disclaims the rest as old, and such remaining parts are to be regarded as old or common and public.

13. Claim 1 of Reissue 1039, if construed simply as claiming the placing of the dropman on the machine, would probably be held void as claiming a mere result irrespective of the means by which it is accomplished; but if construed as claiming the accomplishment of the result by substantially *the means described* in the specification, it is free from that objection. Such claim should be construed in this limited manner if possible in order to save the patent.

14. Claim 2 of Reissue No. 1039 embraces the combination consisting of one frame, the runner frame having the seat for the dropman, and another frame, the wheel frame, having a lifting lever fulcrumed to it. The defendants *held* to have infringed this claim, although the levers used, in themselves, were different in form and point of attachment from the appellant's lever.

15. Reissues Nos. 1091, 1092, 1093, and 1094 declared void for want of sufficient invention to constitute patentable novelty.

16. The combination (in 1091) of a seat for a driver, on a machine which had a dropman's seat on it when a driver's seat had been used on a similar machine before, but without a dropman's seat thereon, does not constitute a patentable invention.

17. The Reissue 1095 explained, and the novelty of the combination for effecting double dropping pointed out. Both the defendants held to have infringed the claim of this reissue.

G. W. Brown filed two separate bills in equity in the court below against Bergen and Sisson in the one case and against Selby and others in the other case, charging them respectively with infringement of certain letters patent granted to him, Brown, for improvements in corn planting machines, being reissues of previous patents, and praying for an account of profits, for injunctions, and for general relief. The defendant in the first case filed an answer, and two amended answers, setting up, in general, that the complainant was not the original and first inventor of the improvements patented to him, but that the same were previously known and used by various other persons named in the answers, and that the reissued patents of the complainant were fraudulently obtained, and they denied that they infringed the complainant's patents. The pleadings in the other case were substantially the same. Much testimony having been taken, the causes were heard together before the circuit court, and the complainant's bills were severally dismissed. The appeals were from the decrees dismissing them. Bergen, one of the original defendants in the first case, having died, the cause was revived in the name of his executor, one Guild, who, with the other defendant, Sisson, were the now appellees in that case.

The invention as to which the controversy in the cases arose is one which is called "a check row corn planter" -- an invention intended to facilitate the planting of Indian corn (maize) in the best way.

This sort of corn, as most persons have observed, is usually planted in rows -- rows from three feet ten inches to four feet apart. It requires to be so planted in order that the spaces between and all around the hillocks in which it is planted may be ploughed, after the corn begins to grow, or (to use the technical term) that the corn may be "cultivated." For if weeds are allowed to grow about the corn, they impair its strength and diminish its productiveness.

Prior to the time when "the check row corn planter" was

devised, and while, of course, all planting was done by hand, farmers used to secure the planting, properly, in rows, with the grain at right distances from each other, in this way. They made a series of transverse scratches or marks across the field, as shown by the black lines *a b* in the design below.

image:a

Then, when they came to plant, they ploughed transversely, as shown by the dotted lines *c d* , and at the intersections *e e* of the furrow *c d* , with the scratched line *a b* , they dropped the corn. The corn therefore grew in regular rows, and could be "cultivated" by means of a plough drawn by a horse who went between the rows in both directions.

But this operation of drawing great numbers of lines and ploughing in two directions across large fields, and of dropping the corn by hand at the intersections, was a slow and laborious one, and one requiring great care in order to be accurately done.

The object of the improvement under consideration in these cases was to do this work -- that is to say, to plant the corn in the best way in hills at exact and proper distances apart -- dispensing with much of the former labor.

The first and principal question in the causes was whether the complainant, Brown, was the original and first inventor

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of the improvements claimed by and patented to him, or whether he was anticipated therein by other persons named in the answers of the defendants.

As set forth in the bill, the first patent obtained by the complainant for one portion of his alleged invention and improvement was granted to him on the 2d day of August, but antedated the 2d day of February, 1853. This patent was surrendered on the 16th day of February, 1858, and a new patent was issued in lieu thereof upon a corrected specification. This reissued patent was also surrendered on the 11th day of September, 1860, and in lieu thereof five new patents were issued

upon five several corrected specifications, which new patents were numbered respectively reissues 1036, 1037, 1038, 1039, 1040, each one being for a distinct and separate part of the original invention, alleged to have been made by the complainant.

On the 8th of May, 1855, a patent was granted to the complainant for certain improvements on his corn planter, which patent was, on the 10th day of November, 1857, surrendered, and a new patent was issued in lieu thereof on a corrected specification. This last patent was also surrendered on the 11th day of December, 1860, and five new patents were issued in lieu thereof on five amended specifications, each being for a distinct and separate part of the improvements intended to be secured by the patent of 1855. The last mentioned patents were respectively numbered reissues 1091, 1092, 1093, 1094, and 1095. Copies of all the reissued patents of both series were annexed to the bill. Upon the taking of proofs in the cause, copies of the two original patents, and of the first reissues thereof, as well as the reissued patents on which the bill was founded, were put in evidence, together with full and detailed drawings and models of the complainant's original and improved machines.

The defendants, in their answer and the several amendments thereof, referred to many machines, patents, and applications for patents which, as they alleged, embodied all the improvements of the complainant's machine, and antedated

the same. These will be more particularly referred to after the features of the complainant's machine have been described.

The original machine, the patent for which was granted to the complainant on the 2d day of August, 1853, and the application for which patent was dated the 27th of September, 1852, is shown in perspective in Figure 2, and consisted of the following parts:

image:b

1. A framework supported on two runners -- the latter being used for cutting a gash or furrow in the earth to receive the seed -- each runner having a cleft at the rear end for allowing the seed to drop to the ground, and furnished with a hopper above, containing oscillating horizontal valves for dropping the seed at proper intervals into the gash or furrow through a tube in the heel of the runner.

2. Another framework, following the first, and supported on two wheels or rollers to follow the runners and press the earth down upon the seed in the gash or furrow.

The relation of the runners A to the covering wheel W is shown at Figure 3, which is a side view of Brown's machine.

image:c

3. A free or jointed connection between the two frames, allowing them to rise and fall independently of each other

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in going over inequalities of surface. This jointed connection was formed by a bolt passing through the arm J, Figure 3, at the point I.

4. A system of levers resting on the axle of the wheels under the rear frame, shown at L, Figure 3, and so applied to the forward frame as to enable the driver to raise the runners out of the ground for turning about or for any other purpose, with a further arrangement for regulating the depth of the furrow or gash made by the runner.

The complainant's machine was a hand dropping machine, and it was so arranged that a man could be mounted upon it so as to ride sidewise, and observe the lines or furrows which had been made across the field. Whenever the runners passed on these lines, the seed was dropped. This was done by means of a connecting rod between the seed valves in the two hoppers, one end attached to each, with a lever to move it backward and forward by the hand of the dropper sitting crosswise on the frame, so that he could by such movement drop the seed from both hoppers at the same time at the intersection of the cross lines marked on the field.

The machine is shown with the dropman placed in his position in Figure 4, and the check rows are seen extending across the field. The machine was described with substantially these parts in the specifications and drawings attached to the original patent of 1853, as well as the several reissues 1036, 1037, 1038, 1039, and 1040.

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The improved machine, as patented in 1855, had two additional features, or improvements:

1. A vibrating valve, called a flipper valve, in each seed dropping tube, which valve is composed of a long slender slip of metal attached to a pivot in the middle, connected by a small attachment to a slide valve having two openings, so that when the top is moved to one side of the tube the bottom moves to the other side. By one movement, the seed drops through the slide valve into one side, and is detained near the bottom till the next movement, when it is dropped on the ground, and seed is admitted simultaneously through the slide valve into the other side. The two positions of the flipper valve, slide valve, and lever are shown in Figures 5 and 6. The effect of this arrangement is that the seed

image:e

is near the bottom of the furrow when it is dropped, so that it is immediately deposited in line with the check row. And the peculiarity of the apparatus is such that it requires but one movement of the levers above to drop for a single hill.

2. Another improvement was a high, long seat for the driver on the rear frame, located above the wheels lengthwise of the machine, so that by moving backward or forward on the seat, his weight will raise or depress the runners.

The only claims allowed by the Patent Office upon the original application in the patent of 1853 were:

"1st. The oscillating horizontal wheels or distributors (namely, the valves before referred to), in the bottoms of the hoppers, having slots and holes of various sizes, in combination

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with the stationary caps and pins for the discharge of different kinds and quantities of seeds, as set forth in the specification."

"2d. The arrangement of the covering rollers, mounted as described, and performing the purpose of covering the seed, elevating the cutters in turning round, and also in adjusting to different depths, as set forth."

Other claims were applied for, but were disallowed.

The five reissues, or new patents, issued September 11th, 1860, in lieu of the original patent of August 2d, 1853, and of its first reissue in 1858, were for a number of supposed distinct inventions comprised in the machine, and each contained one or more separate claims. None of these distinct inventions were claimed as distinct features in the original patents, nor were they claimed as such in an intermediate reissue granted in 1858, but they are shown distinctly in the original drawings and were described in the specification of the original patent.

The only claim allowed in the patent of May 8th, 1855, for the improvements added to the machine, was as follows:

"In combination with the hoppers and their semi-rotating plates *d* , the runners A with their valves *f* , and their adjustment by means of the levers and cams, and the driver's weight for the purpose of carrying and dropping seeds by each vibration of the lever D, and to regulate the depth of the planting, as described."

By the reissue of December 11th, 1860, this patent was subdivided into five new ones, each having one or more separate claims for supposed distinct inventions which were comprised in the drawings of the original patent, and in the descriptive part thereof.

Upon the first question, that of novelty, the defendants referred in argument to Cooke's well known "drill," and other like machines described in the *Farmer's Encyclopedia,* and to an old machine of Joab Moffatt; but the principal prior machines relied upon by them as anticipating the invention found in Brown's patent of 1853 were the following:

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1. The cottonseed planter of Thomas, patented in 1848, which the complainant contended was different from his corn planter. This machine is described in the opinion of the court, [Footnote 1] and illustrated at Figure 7.

image:f

2. Henry Todd's seed planter, patented December 13th, 1843, which is also described in the opinion, [Footnote 2] and illustrated

image:g

in Figure 8. The complainant contended that this was a different machine.

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3. Earle's planting plough, patented in 1848. This, described in the opinion, [Footnote 3] was an automatic corn planter, and, as argued by the complainant, was wholly unlike his planter.

4. Mumma's seed drill. This, also described in the opinion, [Footnote 4] was, however, not strongly relied upon by the defendants.

5. Remy & Kelly's machine. This machine is described by the court, [Footnote 5] and is illustrated in Figure 9. For this a

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patent had been applied for in June, 1850, but the application was then rejected and withdrawn. An experimental use of the machine was also proved.

Upon this condition of things, the question under this fifth machine was much discussed, as to what position, as a defense, a description of a machine contained in a prior rejected application occupied, and if it was not a good defense by itself, how far it might be considered in connection with a prior experimental use in establishing an anticipation of a patented invention.

6. Three prior machines of James Abbott, which were produced by the defendants. These, the complainant contended, were unsuccessful experiments, if indeed they were prior in date to his invention. The two principal of these

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machines are described by the court, [Footnote 6] and illustrated in Figures 10 and 11.

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7. John Kirkman's unpatented machine. This was much relied on by the defendants, but the complainant contended that it was materially different from his corn planter in having but a single frame in which were both runners and wheels, instead of two independent frames with runner and wheels like his. It was also insisted that on the evidence it was subsequent in date to his. It is described in the opinion of the court, [Footnote 7] and illustrated at Figure 12 on the next page.

8. Joab Brown's corn planter, said to have been used in 1850 and 1853, and another corn planter for which he applied for a patent in December, 1852, were also adduced. The complainant contended that the machines of 1850 and 1853 were unsuccessful and abandoned experiments, and that the machine for which the said Joab Brown applied for a patent in 1852 was wholly unlike his, the complainants',

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machine. This last machine of Joab Brown is analyzed in the opinion, [Footnote 8] and illustrated at Figure 13.

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Besides these, the defendants set up and relied upon the machine of Charles Finn and of Jarvis Case as containing the double dropping device, claimed by the appellant in Reissue No. 1095.

The double dropping devices in these two machines are described and illustrated in the opinion of the Court, [Footnote 9] and shown further on the Figures 23 and 24, page 200.

Upon the question of infringement there was much discussion.

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The conclusion arrived at by the court, in declaring the complainant's reissued patents 1037 void for want of novelty, and also the reissued patents Nos. 1091, 1092, 1093, and 1094 void, as not containing patentable novelty, obviates the necessity of here referring to the infringement of the several claims of those patents.

As to the infringement of the other claims, it was contended that the machine of the defendant Selby, and of the defendant Bergen, infringed the claim of Reissue No. 1036. That claim was in these words:

"CLAIM 1036. Having thus fully described the nature and object of my invention, that I claim under the patent is a seed planting machine, constructed principally of framework, the front part of which is supported on not less than two runners or shoes, with upward inclining edges, and the rear part supported on not less than two wheels, the latter being arranged to follow the former, substantially as and for the purpose set forth."

The defendant Bergen's arrangement is shown, in side view, in Figure 14, and was thus described in his patent:

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"The body of the machine consists of a frame B, mounted on runners, and a rear frame A, mounted on wheels, the two frames being united by a flexible joint, so arranged that it can be rendered rigid under certain circumstances."

The complainant contended that as the machine had two distinct frames, one frame resting on a pair of rollers and the other distinct frame resting on a pair of runners or cutters, it was within this claim.

The defendants, besides insisting that this claim was anticipated

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by Kirkman's machine, also contended that the Bergen machine did not infringe inasmuch as the pivot or hinge was different and differently located.

The machine made by the defendant Selby is shown in Figure 15, and consisted of two distinct frames pivoted

image:m

together. One of these frames was supported on two runners and the other by two wheels.

The claim of the complainant, under Reissue 1038, was as follows:

"CLAIM 1038. Having thus fully described the nature and object of my invention, what I claim under this patent is, in combination with a seed planting machine, constructed principally of framework, with not less than two runners and not less than two wheels, a hinge joint between the point of the tongue and the rear part of the machine, so that one part of the framework may be raised, lowered, adjusted, or supported on the other part, substantially as described."

The mode of attaching the front and rear frame in the defendant Bergen's machine is shown in Figure 16, on the next page, and was thus described in Bergen's patent:

"I construct my seed planter in two parts, consisting of two frames of equal width and suitable strength, coupled together. . . . These frames are coupled together by a slotted joint at

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each side of the frame, to permit either frame to have a varying vertical movement without changing the position of the seed tubes or varying the depth of the planting."

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A peculiar hinge, shown at Figure 17, was employed by Bergen, and the appellees contended that Brown was to be limited to his peculiar hinge, and that Bergen's machine had a different hinge.

image:o

The arrangement of Selby, the other defendant, is shown in Figure 18. He also had two separate frames pivoted together, but the pivoting or hinging was effected by extending the rear frame forward and pivoting the front end of the runner to the projection of the rear frame. It was contended by the defendants that on this account, in the Selby machine, the two frames, although hinged, were combined together in a substantially different manner, and therefore

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that it was no infringement. The complainant insisted that although the place of uniting the two frames together was different in the two machines, and the hinges were peculiar,

image:p

yet the pivoting of these frames together caused the combined action to be exactly alike.

The claim of Reissue 1039 was in these words:

"CLAIM 1039. Having thus fully described the nature and object of my invention, what I claim under this patent is in a seed planting machine wherein the seed dropping mechanism is operated by hand or by an attendant, in contradistinction from 'mechanical dropping;' the mounting of said attendant upon the machine in such a position that he may readily see the previously made marks upon the ground and operate the dropping mechanism to conform thereto, substantially as herein set forth."

The complainant urged that this was not for the mere putting of a seat on the machine, but for so arranging the several parts that a dropman could be located in a position to see the marks on the grounds and work the seed valves, and that in both the Bergen and Selby machines the same arrangement of the several parts of the respective machines had been made; that a man could be located there in a sitting position and do his work.

The arrangement of Brown's seat is shown is Figure 19, on the next page, and was between the two seed boxes, and so that he could sit sidewise astride and observe the marks.

The Bergen seat was in like manner located between the

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two seed hopper boxes, and so that the dropman could sit astride of the seat and look sidewise across the field.

image:q

The arrangement for Selby's seat is shown in Figure 15, [Footnote 10] and was in the same position as Brown's.

It was contended by the complainant that as no one had ever arranged the several parts of a corn planter so that a man could sit upon the machine in a position to watch the marks on the ground and at the same time work the valves, the *manner of organizing* these several parts, by which he could sit there and work the valves, involved invention, and this was not like the mere putting of a driver's seat on a machine in positions where *drivers' seats* had been accustomed to be placed, for the mere purpose of driving the machine.

The opinion of the court, as already stated, dispenses with the necessity of reference to the question of infringement of the second group of reissues, except Reissue No. 1095.

The claim of the reissue 1095 was in these words:

"CLAIM 1095. Having thus fully described my invention, what I claim under this patent is so combining with a lever, by which both may be operated, a valve or slide in the seed hopper and a valve in the seed tube as that a half motion of the lever by the operator, riding on the machine by which they are operated, shall both open and close the seed passages at regular periods, and pass measured quantities only, substantially as described. "

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It was contended on behalf of the complainant that this was a claim for a combination, as shown in Fig. 20, consisting

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of a lever *l* , a sliding valve in the bottom of the seed boxes having two openings, *a* and *b* , and a vibrating valve in the seed tube extending throughout the length of the seed tube, which valve, when vibrated in alternate directions formed alternate passages in conjunction with the opposite sides of the seed tube, so that when vibrated in one direction this seed tube valve formed, with the side of the seed tube, a passage E, which, in connection with the opening *b* , in the hopper valve, caused the seed to descend into the seed tube and be retained at the

bottom of the seed tube. When the lever was vibrated in the opposite direction, the valve in the seed tube moved into the position E' (Figures 21 and 22),

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so as to open on one side a passage to the ground for the seed previously deposited in the seed tube, and at the same time opened a passage for the seed through the seed hopper slide valve into the seed tube on the opposite side of the vibrating valve from that shown in the first position. The mode of combining their several elements -- namely, the lever, the valve in the seed hopper, and the valve in the seed tube --

was substantially similar to that of the complainant. So that the vibration of the slide valve, at the bottom of the seed hopper, caused the tube valve to vibrate in proper relation thereto.

Two devices were set up as anticipating Brown:

1st. That of Jarvis Case, whose device, in its two positions, is shown in Figures 23 and 24.

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This machine was like Brown's in that one muscular effect did the work of opening and closing the hopper valve and seed tube valve, but the seed tube valve was not double-acting, and a spring returned it to its place, and the operator had to overcome the force of this spring.

2d. Finn's machine, which is shown in Figures 25 and 26.

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In this last mentioned machine, the seed tube valve and hopper valve were each only single acting, and two motions of the arm of the operator were required in consequence for each deposit of seed. It was contended that Brown's machine

differed from Finn's and Case's in containing a lever in combination with a double passage hopper valve and a vibrating valve extending through the seed tube, which

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vibrating valve was double acting in the sense of forming, with the opposite walls of the seed tube, alternate passages on each side of the vibrating valve, with each half motion of the operator's arm, thereby saving much labor.

The Bergen dropper and the Selby dropper agreed with Brown's in having each a slide hopper valve having two passages, a double-acting vibrating seed tube valve located within and extending the length of the seed tube, which vibrating valve formed alternate seed passages for the grain to the ground, at each half motion of the operator's arm. The Selby dropper had a lever in combination with these parts, and in the Bergen dropper a handle was substituted for a lever in this combination.

As already stated, the court below dismissed the bill of the complainant, and the present appeals were taken to such action.

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MR. JUSTICE BRADLEY delivered the opinion of the Court.

A proper decision of the questions in these causes renders it necessary, in the first place, to ascertain as near as may be the actual date of Brown's alleged invention or inventions, such as and whatever they are. His original application for a patent was sworn to on the 27th of September, 1852. But it appears from his own testimony, which does not seem to be discredited, but rather corroborated by others, that he was making experiments in 1850, on a machine

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which formed the nucleus of his completed invention. He further says that in January or February, 1851, he made a machine which he describes as follows:

"It had two runners and two wheels, two cross-bars and nose pieces, two braces, dropper's seat, and a tongue. The wheels were hung through the seed boxes by arms. There were arms running back from the seed boxes, which the wheels run in, coupled through the seed boxes with a bolt. I had a loop running down each side of the wheel that went on to the axles on the wheels, and worked a couple of short levers fastened on this loop running forward under the forepart of the machine, and running back far enough to put a cross-piece on behind. I am a poor hand at describing it. The seed slide passed through the hoppers, running from one to the other, and the lever operated it with the hand, with a person located on the machine cross-wise, so that he could see the marks plain on the ground."

Further evidence was given by him descriptive of the machine, and showing its substantial identity with the machine as it stood when the patent was granted.

This, however, was only a model. But it had all the main characteristics of the perfected machine except that the circular valves were not contained in it, the seed being dropped from the bottom of the hopper by the movement of a straight slide. He further testified that in 1852 he sent that model by his brother to Washington, and that it was very nearly the same as the model filed in the Patent Office, a copy of which was shown to the witness, and is an exhibit in the cause. He further states that in the same year he made, after the plan of the model, a machine of one-half the usual size, but large enough to work with, and that he planted three or four acres of corn with it in May, 1851. He says it worked well. In September of the same year, after harvest, he invited several persons to come and see it operate, giving their names. Several of these witnesses were called and fully corroborated his testimony. Early in 1852 he commenced constructing ten machines, but completed but one of them that spring. With this one, and the half-sized machine before mentioned, he planted over twenty

acres of corn -- namely, sixteen for himself and eight for Allen Brown. At this time, he says, he introduced into these machines the circular valves, or dropping plates, in place of the slides, thus completing the machine as it stood when he applied for

his patent and made the model now before us, which was during the same season. The following spring, 1853, before corn planting time, he had completed a dozen machines containing all his improvements, and sold them to various persons. Some of them, he says, planted as much as three hundred acres of corn. These machines, he says, contain the high seat and flipper valve, which were the subject of the patent dated May 8th, 1855.

The appellees have endeavored (but we think unsuccessfully) to discredit the statements and testimony of Brown, especially as to the existence of rollers for covering the seed in the model and small sized machine made in the early part of 1851. He is corroborated on this point by his nephew, V. R. Brown, and others, and nothing but negative testimony is adduced to the contrary.

We think it clear that his machine (except the seat and the flipper valve) was substantially invented in the beginning of 1851, and that in April or May of that year he had constructed and used a small working corn planter, containing all the material parts of his machine as it was when patented, except the circular valve in the hopper, which was added as an improvement on the straight slide in the spring of 1852.

We will next proceed to inquire what machines belonging to the same general class had been invented prior to this period, in order to show the state of the art at that time.

It cannot be seriously contended that Cooke's drill, and other machines of the kind, described in the *Farmer's Encyclopedia,* bear any resemblance to the specific features of Brown's corn planter. The furrows are made by coulters fixed in beams, and the grain is covered by harrows following the drills. The latter are hollow tubes which are supplied with the seed grain by a revolving cylinder having little cups or cavities in its surface, which become filled as they revolve in the bottom of the hopper.

It is hardly necessary to consume time in reference to the alleged invention of Joab Moffatt, in or about the year 1834, models of which, made from the supposed recollection of witnesses, have been presented to the court. Moffatt himself was placed on the stand, and swears that he has no recollection of having ever invented such a machine. And it is a little singular, if he did invent such a perfect machine as the models represent, approaching so closely in every particular to Brown's corn planter, that it should have gone into total disuse and oblivion. The general aspect of the evidence relating to this supposed machine, and some remarkable individual features which it exhibits, are sufficient to justify us in throwing it entirely out of the case.

An English patent, obtained by one Hornsby in 1840, was introduced, but the mechanism described therein has very slight resemblance to the corn planter. It consists of a hollow wheel, with angular compartments and doors in the circumference to receive seed and manure from a hopper and deposit them on the ground by the revolution of the wheel. This wheel is situated in rear of a coulter running in the ground, and does not touch the ground itself, but is supported on the frame of the machine, which in turn is supported by large driving wheels on the outside of the frame. The coulter and deposit wheel are located in the inside of the frame. The inventor, however, observes that more than one coulter and deposit wheel may be used. No method is described for covering the seed or pressing it into the ground. The side view of the coulter exhibited in the drawing bears some resemblance to the runner in Brown's machine; but we have no other description of it or of the manner of its operation.

Thomas's cottonseed planter, patented in 1841, is next adduced. [Footnote 11] It consists of a long bed-piece of plank, supported by two wheels, one on each side, and having a sort of keel underneath, running along the middle, for making a crease or furrow in the ground and keeping the machine in a

direct course. In the middle of the bed-piece, over the axle of the wheels, is an aperture to allow a seed roller affixed to the axle to revolve, having alternate ridges

and seed holes. Over this is a hopper which holds the seed and communicates it to the seed roller, by whose revolution the seed is dropped into the furrow. A loose flap is hinged to the rear end of the bed-piece, and drags along on the ground for covering the seed with earth. The keel in this machine bears some resemblance to the runner of the corn planter. This patent requires no further observation. It exhibits a semblance only of one or two elements of Brown's machine.

The next machine in order of time is Henry Todd's, of Oxford, New Hampshire, patented December 15th, 1843. [Footnote 12] It is thus described by the witness, Hale:

"The main portion of the machine consisted of a plank or surface board, three or four feet long, one foot wide, and tapered to a point in front. The seed box was fastened to said plank. The seed was distributed by cups upon a belt, upon the principle of a flour elevator; the motion was communicated by band from a roller at the rear of the machine, said roller also serving to press the earth over the planted corn. A cutter was fastened to the bottom of said plank for opening a drill for dropping the seed, and a couple of converging wings fastened to the rear and bottom of said plank for covering the seed. The cutter before mentioned had an upward incline in front, and at the front was thin and sharp, spreading out at its rear end."

The machine was managed much like a plough, having two handles. The roller in the rear was connected with the front part of the machine by two arms, one on each side, in which were situated the bearings of its axle, and the forward ends of which were, by pivots or bolts, attached to supports, so that the roller could rise and fall independently of the surface board or platform of the machine. It resembled Brown's machine in having a cutter (or runner) for making a furrow, in dropping the seed through a cleft at the rear of the cutter, in having a roller

to press the earth upon the seed, and in having a free connection between said roller and the machine. It differs from it in having but one cutter (or runner) and

one roller, in having a pair of wing-like scrapers behind the runner to cover the seed with earth, an automatic feeding apparatus incapable of dropping the seed in check or cross rows, and having no levers and nothing but the plough handles to lift the cutters out of the ground.

Hale was the only witness examined on the subject of this machine. He says he helped Todd make six of them, and that they were used, and worked satisfactorily, in or about 1844. This being all that is heard of this machine in the cause, it is probable that its use was discontinued and that it shared the fate of a thousand other devices which approach the point of final perfection and success but do not reach it. The differences between this machine and Brown's are just those differences which rendered the latter a success and a valuable acquisition to the agriculture of the country.

Earle's planting plough, patented in 1848, may be dismissed even more summarily than Todd's machine. It operated automatically in depositing the seed, and was not adapted to check row planting; the furrow was opened by a plough furnished with a double mould board, and the seeds were covered by means of scrapers attached to a diagonal position behind the seeding apparatus. It had but one frame, and the seed was deposited by means of a drum, having cavities in its surface, revolving in the bottom of the hopper, and discharging he seed into a tube behind the plough.

Mumma's patent for a seed drill, granted in 1849, was also put in evidence, but it describes only a grain drill, devised to secure a more equal distribution of seed in the drills or furrows in ascending or descending hills &c.;

"To the hind part of the frame a small trunk is jointed with a long lever attached to it by which the whole seeding apparatus is raised from the ground when it is transported from place to place."

This device of the truck or jack and lever for

prying up the machine when being turned or transferred from one place to another bears some resemblance to Brown's method of raising the front frame of his machine by the levers resting on the drums or wheels. The patent is probably introduced to show this resemblance. It is so slight, however, that it can have no serious effect in the cause.

The machine of Remy & Kelly comes next. [Footnote 13] They applied for a patent in June, 1850, but withdrew the application in August, 1850, for what cause does not appear. We have before us a copy of the application and accompanying drawings and models of the machine and the examination of Remy and one Burgess in reference thereto. The machine consisted of a front, middle, and rear frames or parts, the former being mounted by two seed boxes or hoppers and being furnished below with two drill teeth which cut or scratched the usual small furrow in the ground and through which the seed was deposited in the earth. Small rollers with cavities in their surfaces were made to revolve in the bottom of the seed boxes, and thus carried out and deposited the seed in the drill teeth in the usual manner of drills. [Footnote 14] The drill teeth were followed by a transverse row of upright harrow teeth for covering the grain. These harrow teeth were inserted in a cross-bar framed into two long levers which were attached to the forepart of the front frame by a loose joint. This apparatus constituted the middle frame. The rear frame was also attached to the front frame by a loose joint, by means of side bars, extending forward and connected thereto by bolts or pins, and was supported on a transverse roller consisting of four wheels or bulkheads, and iron bars connecting them together, making a sort of rolling crate which rested on the ground, supported the driver's seat, and by means of bands and pulleys gave a revolving motion to the seed rollers before mentioned. An iron crank within the driver's reach, and fitted in bearings on the rear

frame, enabled him to pry up the cross-bar holding the harrow teeth, and with it the rear end of the front frame with the drill teeth. This operation, as the tongue was fast and rested on the horses, raised the cross-bar and the rear end of the front frame so as to lift the drill teeth and harrow teeth out of the ground. In this respect

it produced, by means somewhat different, a result similar to the lifting of the front frame and runners by means of the levers acting on the fulcrum of the wheels in Brown's machine. Only one machine, however, was ever made, and this was made merely for an experiment in Brookville, Indiana, in the year 1849. It did not contain the pulley strap for turning the seed rollers, which the application and model exhibit as part of the invention. Remy, in trying the machine, walked alongside of it and with a crank gave the seed rollers an oscillating motion with his hand, Burgess driving. In this way they planted five acres, which Remy says were planted even and cultivated both ways. But the machine was never used again and was afterwards broken up, and no other was ever made. Remy made many other corn planting machines on a different principle, but he said there was no demand in that region for a machine of this kind.

The appellees contend that this was an anticipation of several material parts of Brown's machine. But it is obvious that it had not the runners nor the covering rollers, nor was it adapted to planting in check rows. As presented to the Patent Office in 1850, and in the models exhibited to the court, it was planned for an automatic drill planter. The experiment made in 1849, when Remy worked it by hand, was a mere experiment, which was never repeated. It may have presented one or two ideas in advance of other machines, but it can hardly be said to anticipate the machine which we have described as Brown's. Were it not for the application for a patent, it would justly be regarded as an abandoned experiment, incapable of being set up against any other claim. Can the fact that such an application was made and afterwards voluntarily withdrawn and never renewed make any difference? We think not. Had

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a patent been actually granted to Remy & Kelly, it would have been different. The case would then have come directly within the seventh section of the Act of 1836, which makes a "patent" or a "description in a printed publication" of the invention claimed a bar to a further patent therefor. But a mere application for a patent is not mentioned as such a bar. It can only have a bearing on the question of prior invention or discovery. If upon the whole of the evidence it appears that the

alleged prior invention or discovery was only an experiment and was never perfected or brought into actual use, but was abandoned and never revived by the alleged inventor, the mere fact of having unsuccessfully applied for a patent therefor cannot take the case out of the category of unsuccessful experiments.

The next machine which we will examine is that of James Abbott, which is strenuously claimed as an anticipation of the complainant's machine, or of material parts thereof. Abbott resided in Brimfield, Peoria County, Illinois. Models of his machine are in evidence. [Footnote 15] No public description of it is produced. No patent was ever applied for by Abbott. He made his first machine in 1846, having one frame and two coulters. The seed was dropped behind the coulters, and the wheels of the machine passed over it. The coulters would clog, and he soon abandoned the machine. In 1848, he made another and put it in operation. [Footnote 16] Instead of coulters, he now used runners, something in the form of a sled runner, with wings behind to widen the furrow and make a place for dropping the seed. One of the runners was produced on the trial. It was made of wood and shod with iron. The machine had but one frame, and only one wheel, which was in the middle between the runners. On each side of the wheel were cams to operate L levers, which worked into the bottom of the seed boxes and dropped the corn behind the runners. The seed was covered by scrapers or wings which followed the runners. Behind the wheel

and runners there was a platform on which the driver stood, and by stepping backward or forward he could slightly elevate or depress the runners. This machine was automatic, a mere drill, and had nothing but the runner in common with Brown's machine.

Abbott then says:

"The next machine which I constructed was, according to the best of my recollection, in the spring of 1852, certainly not later than 1853."

He then proceeds to describe the machine. It had but one frame, and whilst it exhibited some of the same parts which are found in Brown's machine, yet it is obviously a different machine from Brown's, and intended as an automatic drill instead of a check row planter. But as in our judgment the weight of the evidence (of which considerable was taken) is that it was constructed subsequently to Brown's, it is unnecessary to give it further consideration.

Another machine much relied on by the appellees was that of Kirkman, of Peoria County, Illinois, a farmer but formerly a millwright and engineer. [Footnote 17] He lived in the same neighborhood as Abbott, and the latter, in his evidence, says that after he had made a drawing of his last machine (above referred to), Kirkman was at his house and took a rough sketch of the drawing, and soon after made a machine nearly like it in which he had broad iron wheels. The character of Kirkman's machine is very explicitly shown, exact models of it and one of the actual runners being produced. It was composed of a single frame standing on two runners in front and two wheels following the runners in the rear. The seed was placed in boxes or hoppers over the rear end of the runners, and was let down to the furrow through a tube enclosed in the rear of the runners by means of an automatic device operated by gearing connected with the wheels. Between the wheels was a platform on which the driver sat or stood. By stepping backward or forward on this platform and changing the position as to the bearing on the axle of the

wheels, the machine could be tipped up or down in front so as to raise or depress the runners. This action was facilitated by the tongue's being freely attached by a bolt between the hounds so as to admit of a hinged motion. A cross-bar screwed to the top of the hounds above and the front cross-bar of the machine below the tongue limited the movement thus produced and also regulated the depth of furrow. In the machine as first constructed, a seat was rigged in the rear of the platform for the driver, by moving on which, backward and forward, the same tipping process could be produced. This was afterwards abandoned.

It will thus be seen that Kirkman's machine had some of the prominent features of Brown's. It differed from it in not being a check row planter, and not planting in hills but in rows, and acting automatically simply as a drill, and having but a single frame.

Considerable evidence, much of it apparently conflicting, was adduced as to the time when Kirkman's machine, or rather several machines (for he built three at different times), were constructed. [The court here stated and examined this testimony, as to date, and continued.]

A review of the entire evidence on the subject leads us to the conclusion that Kirkman's second machine, called the Wrigley machine, was made in the early part of 1850; that he tried it that spring unsuccessfully; that he then laid it by, and did not attempt to use it again until the spring of 1852, after he had made a material alteration in it -- which alteration was made after the summer of 1851 -- and not completed, as it would seem from the evidence of Kingsley, until the spring of 1852. This would make the machine of Kirkman about contemporary with that of Brown's second machine, which he completed and operated in the spring of 1852, but would bring it, as a completed machine, subsequent to the half-sized machine which Brown completed and operated in the spring of 1851, and publicly exhibited in September of that year.

The machine referred to by Abbott as having been made by Kirkman by the aid of drawings furnished by him, was

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most probably the third machine made by Kirkman, in 1856, which is the only one made by him having iron wheels.

The last machines relied on as antedating the appellant's are those of Joab Brown, also of Peoria County, Illinois. [Footnote 18] According to his testimony, he was experimenting on the subject in 1849, 1850, and 1851. In 1849, he made a machine with one runner placed under a plank. It bore no resemblance to the appellant's machine except as to the runner, and it did not work satisfactorily. In

the spring of 1850, he made a second machine, having two runners and two wheels running behind them to cover the seed and a third wheel, larger than the others, situated forward in the middle, for the purpose of working the apparatus for dropping the seed. It was intended as a check row corn planter, and was tried for that purpose, but failed, and what was planted with it was planted only in single rows. It was afterwards abandoned. As Brown says, "It became common stock in my lumber yard." In the same year, 1850, Joab Brown made another machine, or, as his son says, two of them, with two runners each, but they had no wheels running behind the runners to cover the corn. They had an iron shaft running through the hoppers, with an apparatus for taking up and dropping the seed, and this shaft had a wheel at either end, outside of the machine, for giving it a revolving motion. This machine had a seat for the driver, but only one frame, and the tongue was bolted fast to that, so that there was no means of tilting the runners out of the ground. Joab Brown says that he altered this machine in the spring of 1851 by changing the seeding apparatus. He removed the shaft and substituted lever bars with slides entering the hoppers, and an upright lever extending above the seat for working the bars. He thus placed a dropper as well as the driver on the seat. In 1853, he placed the wheels so as to run behind the runners. As thus finally altered, it bore some resemblance to the appellant's machine,

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in certain particulars. It is true it had but a single frame, with no hinged joint, and could not be tilted out of the ground; the driver and dropper had to dismount in order to turn around; nevertheless it had a dropping device worked by hand by an attendant who dropped the seed in check rows, and had a seat for both driver and dropper, and had runners and wheels running behind them to cover the seed. It was not thus completed, however, until 1853, long after the construction of appellant's machine. In the spring of 1851, Joab Brown made two other machines. One was a two-rowed machine with a single frame, having two runners followed by two rollers, but, as Joab Brown himself says, working automatically "as a drill planting machine." "We left off the lever entirely," he says, "and depended on the

wheels to do their own dropping." His son says that it was also arranged to be worked by a hand lever by an attendant on the machine. A model was put in evidence which, as the son says, represents substantially this machine, but according to Joab Brown's own testimony, this model represents the machine which was altered in 1853. Its features are substantially as before stated. Affected by this degree of uncertainty as to character and date, it must be received with caution even on those points on which it presents resemblances to the appellant's machine. Joab Brown constructed another machine in the spring of 1851 which presents, as he considered, the final and most perfect form of his inventions. It consisted of a single frame with three runners and no wheels, a seat on the machine for the driver and dropper, and an apparatus worked by a hand lever for dropping the seed in check rows. A model of it was given in evidence. Joab Brown applied for a patent for this machine December 31st, 1852, but subsequently withdrew the same. He says he conceived the idea of the machine in the early part of the spring of 1851, and completed it about the 1st of May, and used it for planting corn, planting about two hundred acres that spring. There is some evidence that this machine was made at an earlier date, but the weight of evidence agrees with this testimony of Joab

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Brown. Its likeness and unlikeness to the appellant's machine are apparent from the above description. The apparatus for covering the seed consisted of a fan-shaped flange or tail projecting behind the runner. One of the persons who used it says that he had to follow behind to cover the seed, some of which would remain uncovered where the ground was uneven. Only the single machine above mentioned was made until 1853, when Joab Brown says he had about forty of them made and sold them to various parties. In a letter to the Patent Office, of August 5th, 1853, urging his application for a patent, he refers to this machine as being the crowning result of seven years' experiments. He evidently regarded his other machines as experiments, or at least as secondary in importance and usefulness to the last machine.

A machine of one Farley, invented in January or February, 1853, was introduced in the case for the purpose of showing that Brown's improvement of placing the driver on the machine, which formed one of the subjects of his second patent, had been anticipated. There was a long platform on Earle's machine, the front part resting on and fixed to the runners, the rear resting on the axle of covering wheels following the runners. The driver rode on this platform, and by stepping forward he could press the runners deeper into the ground, and by stepping back he could raise them out of the ground, using the wheels as a fulcrum. The bearing of this machine on some of the reissued patents will be noted hereafter.

On the subject of the flipper valve (so called), the appellees have introduced two machines, one by Charles Finn, for which he applied for a patent in April, 1852, but which application was rejected, and the other by Jarvis Case, for which he applied for a patent December 9th, 1853.

These devices will be examined hereafter, when we come to consider the claim for the flipper valve as contained in the reissued patent No. 1095 (*see infra,* page 90 U. S. 233).

We have thus gone over and explained, as well as the

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subject will admit, the various machines and inventions which constitute the history of the special art under consideration up to the time that Brown's machine was produced. In the light of this review, we are to determine the extent and character of his various patents and claims, and how far they are valid or void.

It is very obvious at a glance that the claim of reissue No. 1037, which is for the construction of a shoe or runner for seed planting machines generally, cannot be sustained. That device was used long before Brown made his machine. Without adverting to Thomas's cotton seed planter, it was contained in Todd's patent in 1843, and was used by James Abbott in 1848, by Kirkman in 1850, and probably by Joab Brown in the same year and the year before. There is nothing in the particular form and shape of the appellant's runner which is sufficiently diverse

from others that preceded it to entitle it to the merit of an invention.

Most of the other claims are more complicated, and require more careful consideration to understand their fair scope in view of what had been accomplished before. It may be remarked in passing that in our view, the several reissues are for things contained within the machines and apparatus described in the original patents; but whether they were anticipated by prior inventions or are void for any other reason applicable to patents and claims generally is still open. The question of fraud in obtaining these reissues must be regarded as settled by the decision of the Commissioner of Patents.

The first patent in the series of reissues is No. 1036, by which is claimed as the invention of the appellant a

"seed planting machine, constructed principally of framework, the front part of which is supported on not less than two runners or shoes, with upward inclining edges, and the rear part supported on not less than two wheels, the latter being arranged to follow the former, substantially as and for the purpose set forth."

The machine is so constructed that an additional pair of wheels may be attached to it for the purpose of dropping

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the seed automatically where the nature of the soil is such as to render this method admissible in check row planting. But with that aspect of the machine we are not at present concerned except as it affects the general description of the machine as a whole. The specification describes the manner of its construction and operation for both automatic planting and hand planting. It is in its latter aspect that we shall principally examine it.

The last clause of the above claim, *"substantially as and for the purpose set forth,"* throws us back to the specification for a qualification of the claim and the several elements of which the combination is composed. The thing patented is not only, first, a seed planting machine, made principally of framework, but secondly it

is composed of two distinct parts; thirdly, the front part is supported on two or more runners with upward inclining edges; fourthly, the rear part is supported on two or more wheels, arranged to follow the respective runners, and each and all of these parts are to be thus constructed and combined "substantially as and for the purpose set forth." That is to say, the object and purpose of the machine as a seed planting machine is explained to be to plant corn in check rows, so that it may be cultivated both ways, and its construction is adapted to that end. The devices used for effecting this purpose, both automatically and by hand, are described in the specification, but they are claimed in separate patents, and only affect the one in question as they modify and affect the general structure of the machine. Again, the object and the purpose of constructing the machine of framework in two distinct parts, supported separately, one by the runners and the other by the wheels, is expressed to be "so that the rollers may rise and fall without disturbing the runners or so that the runners may yield or move independently of the rollers." The particular manner of connecting the parts, although described in the specification, is the subject of a separate patent. Again, the object and purpose of the runners and wheels or rollers, the latter arranged to follow the former, is set forth, the former to make a furrow for the seed, the

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latter to "close up and press the earth down over the seeds." The adaptation of the machine, and the several parts mentioned, to these several objects and purposes is thus made a part of the combination of elements called for and made requisite in the claim under consideration.

The claim thus limited is considerably narrowed in its operation. It is substantially for a combination of the material parts of the entire machine, and no one can be said to infringe it who does not use the entire combination.

The first question to settle is whether, as thus limited and restricted, the patent is valid, or whether the invention as thus patented was anticipated by prior inventions.

It is obvious that we may lay out of the question all seed drills. They were not constructed for the specific purpose for which this machine was constructed -- namely to plant corn in check rows, and had not the apparatus adapted to such a purpose. The plough-shaped drill of Todd, though it had a cutter under the front part and roller drawn behind for covering the grain, was only a step in the right direction. It was a mere drill, planting in single rows, and not adapted to plant in check rows, and it was handled and operated in an entirely different manner from Brown's.

Earle's, Mumma's, and Remy & Kelly's inventions may also be dismissed without observation. The description of them heretofore given shows that they were mere drills, that they had no covering wheels, and were not constructed for, or adapted to, the purpose for which Brown's machine was made. Besides, as before seen, the machine of Remy & Kelly was a mere experimental one, abandoned by the inventors. We may also lay out of view Abbott's drill, constructed in 1848, the only one that can by possibility be brought into the case. That had no covering wheels, had but one part or frame, and was not a check row planter. Kirkman's machine also had but a single frame or part; was a mere drill, not planting in check rows, nor even in hills. Besides, as a machine, it was incomplete and unfinished until the alteration which was made in it in 1852, when it was first rendered capable of practical use.

It is urged by the appellees that all those parts of Kirkman's machine which were completed in 1850 and not subsequently altered should be considered as perfected, although the machine as a whole was not perfect and did not subserve the expectation of the inventor until the alterations were made in the seeding apparatus in 1852. It is undoubtedly true that a subsequent inventor could not claim as his original and first invention the separate parts of which Kirkman's machine consisted, and which worked satisfactorily after the machine was perfected. This would prevent the appellant from claiming as his invention the several parts of which Kirkman's machine consisted; but it would not prevent him

from claiming such new combination of those parts with devices of his own as would result in a useful and satisfactory machine adapted to the purposes of its construction.

The machines of Joab Brown which are more or less relied on were all composed of single frames entirely rigid. The machine with one runner, constructed in 1849, was a failure, and is not pretended to have been at all like the appellant's. The machine with two rollers and one large wheel, constructed in 1850, was automatic, could only plant in rows so as to be worked one way, and failed entirely as a check row planter. The other machine or machines, constructed in 1850, had rollers, but these did not follow the runners until altered in 1853, and were not used for covering the corn, but for turning a shaft in the hoppers by which the seed was dropped. This is clearly proven and is shown by their thickness, which was little over an inch. They were abandoned for the three-rowed machine without rollers, which was built in 1851 and for which Joab Brown applied for a patent in December, 1852. It is apparent that none of these machines anticipated the appellant's machine as containing the particulars combined in the claim of the reissued patent No. 1036.

This patent, therefore, construed and limited in the manner before stated, we hold to be valid.

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The next question is whether, as thus construed, the patent is infringed by the defendants. It needs but a glance at the defendant Bergen's machine, a large model of which is produced in court, to see that it has all the essential characteristics of the appellant's machine. [Footnote 19] It is a seed-planting machine made principally of framework, composed of two distinct parts, the front part supported on two runners or shoes, with upward inclining edges and the rear part supported on two wheels, the latter being arranged to follow the former, and the whole and each part constructed and put together for the purpose and substantially in the manner as is done in Brown's machine, and according to his

specification. The only pretense on which it can be claimed to be different is that the "framework" of which it is constructed is not the kind of framework described by Brown in his specification -- namely

"without gearing, without spoked wheels, and other expensive fixtures, and resembling a drag or sled more than it does a carriage or wagon in its main or general construction."

By this description, Brown was evidently attempting to show how simply and cheaply the thing could be made, not that it was to be confined to that specific form. It might as well be contended that he intended to confine his invention to wood and that a machine made of iron or other metal, though made in precisely the same form, would not be an infringement, because it would not have the same quality of cheapness and simplicity which he describes. In fine, we do not understand Brown as limiting his invention to this cheap form, but as showing how cheaply and simply it would bear to be constructed. This, we think, is the fair meaning of his language when taken in connection with the whole specification. A literal construction is not to be adopted where it would be repugnant to the manifest sense and reason of the instrument.

The machine of Selby, which is the subject of the suit of *Brown v. Selby,* in the second case, has all the

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material features above specified as contained in Bergen's. [Footnote 20] We have no hesitation in saying that both machines are infringements of the appellant's patent.

The next claim to be considered is that of reissue 1038. The appellant describes the nature of the invention sought to be secured by that patent as follows:

"The nature of this part of my invention consists in combining with a seed planting machine constructed principally of framework, and with not less than two runners and two wheels, a hinged joint between the point of the tongue and the rear part of

the machine (or between what I term its ground supports), so that one part may, by means of said hinge joint, be raised, lowered, adjusted, or supported on the other part for purposes herein mentioned; meaning by 'one part' and 'the other part' the part in advance and the part in rear of said hinge joint."

The claim adopts nearly the same language, and is in the following terms:

"What I claim under this patent is, in combination with a seed planting machine, constructed principally of framework, with not less than two runners and not less than two wheels, a hinged joint between the point of the tongue and the rear part of the machine, so that one part of the framework may be raised, lowered, adjusted, or supported on the other part, substantially as described."

Understanding this claim as applying and confining to a seed planting machine, consisting of two separate parts, with runners under one part and rollers or wheels under the other, we do not find in any of the machines produced to us this particular feature of the hinged joint in combination with the elements referred to. Kirkman's came the nearest to it, if we should designate as a hinged joint the free connection of his tongue with his machine, which was made by a common bolt between hounds, like those of a wagon. But his machine lacked the elements of the two distinct parts

or frames, which are essential in Brown's, and are implied in the claim of this patent. The hinged joint as an element in the combination with which it is connected, and of which it forms a part, is useful and valuable. Without it, the machine would lack a very material ingredient of its efficiency and usefulness. The device of connecting and combining it with the two integral parts of the machine, and thus connecting and combining those parts so as to produce a useful effect, is one that may be properly denominated invention, although the hinged joint itself may have existed in other machines which perhaps suggested its use in this. Indeed the hinged joint, in one form or another, is an old device. It is exhibited in the reaches of a common wagon, whose fore wheels and hind wheels, in passing

over inequalities and obstructions, rise and fall independently of each other. But in the corn planting machine it has two specific and useful effects -- namely, in securing the freedom of the runner from needless disturbance from the rear part of the machine as it pursues its path along the surface, making a furrow of uniform depth, and in enabling the attendant to raise the part containing the runners out of the ground with ease by means of a lever resting on the other part.

The appellees insist that this patent attempts to secure an old device merely applied to a new use, and that the supposed new use is analogous to that which the same device subserved in the machine of Remy & Kelly. But we have seen that the machine of Remy & Kelly was a mere experiment, abandoned by the inventors. And the device in question is not claimed as an original invention, nor as an improvement; it is only patented in combination with other material elements of the machine to which it is attached as a part. As an element in that combination alone is it claimed. The combination expressed in the claim, viewed as an entirety and in reference to its purposes and uses, is new and produces a new and useful result. And it is no objection to the validity of a patent for such a combination that some of the elements of which it is composed are not new.

It is objected to several of the patents under consideration

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that they do not state what parts of the machine patented are new and what parts are old, and that they are therefore void. There is nothing in the patent law which in terms requires the patentee to do this. The language of the Act of 1836, under which these patents were drawn, is that before any inventor shall receive a patent for his invention or discovery he shall deliver a description thereof and of the manner and process of making, constructing, using, and compounding the same in such full, clear, and exact terms as to enable a person skilled in the art to reproduce it, and the act directs that the inventor shall "particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery." This, of course, involves an elimination of what he claims as new from what he admits to be old. But what can be a more explicit declaration

of what is new and what is old than the summary of the patentee's claim at the close of the specification, if that is made in clear and distinct terms, or in terms so clear and distinct as to be fairly understood. It implies that all the rest is old, or, if not old, that the applicant does not claim it so far as that patent is concerned. If the patentee by his specification, including the summary claim at its close, points out and distinguishes what he claims as his own invention, it is all that is required. That, if we can find it without difficulty or embarrassment, is what he claims as new; the rest he impliedly, if he does not expressly, disclaims as old. No particular form of words is necessary if the meaning is clear.

These observations apply equally to patents for combinations and patents for improvements. Where a patentee, after describing a machine, claims as his intention a certain combination of elements, or a certain device, or part of the machine, this is an implied declaration, as conclusive, so far as that patent is concerned, as if it were expressed, that the specific combination or thing claimed is the only part which the patentee regards as new. True, he or some other person may have a distinct patent for the portions not covered by this; but that will speak for itself. So far as the patent

in question is concerned, the remaining parts are old or common and public.

The patents under consideration expressly declare for the most part what the patentee claims, generally referring, it is true, to the specification as embodying the substantial form of the invention. Such a reference is proper if it does not introduce confusion and uncertainty, and is often necessary for restraining the too great generality or enlarging the literal narrowness of the claim.

These remarks apply to reissue 1038, which we are now considering. We regard it as sufficiently explicit, and we think the patent is valid.

The next inquiry is whether this patent is infringed by the appellees. It is apparent on inspection of the models before referred to that they exhibit every requirement of the patent. They clearly have, "in combination with a seed planting machine,

constructed principally of framework," and consisting of two separate parts, with two runners under one part and two wheels under the other, a hinged joint between the point of the tongue and the rear of the machine, so that one part of the framework may be raised, lowered, adjusted, or supported on the other part, substantially as described in Brown's specification. In Selby's machine, it is true, the hinge joint is not located at the same point (the seed boxes) as in Brown's machine, but is at the front point or toe of the runner. This is not a substantial difference. The office, purpose, operation, and effect are the same as in Brown's machine, and a change a little more or less backward or forward does not change the substantial identity of the thing. The same remark applies to the location of the hinge joint in Bergen's machine, which is at the rear part of the front frame.

We do not see how it can be seriously contended that either of the machines is not an infringement of this patent.

Reissue 1039 contains two claims, as follows:

"What I claim under this patent is a seed planting machine wherein the seed dropping mechanism is operated by hand or

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by an attendant, in contradistinction from 'mechanical dropping,' the mounting of said attendant upon the machine, in such a position that he may readily see the previously made marks upon the ground, and operate the dropping mechanism to conform thereto, substantially as herein set forth."

"I also claim, in combination with a seed planting machine, composed substantially of framework, and upon which the person who works the seed slides or valves sits or stands, a lever or its equivalent by which a driver or second attendant may raise or lower that part of the framework that carries the attendant and the seeding devices, and thus ease the machine in passing over intervening obstacles or in turning around, substantially as described."

The first of these claims, if construed simply as claiming the placing of the seed dropper on the machine, would probably be void as claiming a mere result, irrespective of the means by which it is accomplished. But if construed as claiming the accomplishment of the result by substantially the means described in the specification, it is free from that objection, and we ought to give a favorable construction so as to sustain the patent if it can fairly be done. By reading the claim in connection with the final qualifying clause, thus, "the mounting of said attendant upon the machine &c.;, substantially as herein set forth," the fair construction would seem to include the means and manner of placing him upon the machine. This view is corroborated by reference to the body of the specification. "To enable others skilled in the art," says the patentee, "to make and use this invention, I will proceed to describe the same, with reference to the drawings." He then gives a detailed description of the seat or platform and its relation to the other parts and the mode of occupying and using the same. Construing the claim in this manner, is it then a valid claim?

The only device of a similar character at all competing with it in the matter of time was that used by Joab Brown in his machines constructed or altered in the spring of 1851, the same spring in which the appellant's machine was made. Which was first made it is impossible for us from the evidence

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to tell. Joab Brown, as well as the applicant, applied for a patent for one of his machines having the arrangement of a seat for the dropper. A patent was granted to the appellant, and none was granted to Joab Brown. The Patent Office subsequently amended the appellant's patent so as to include a claim for this very thing in question. Under these circumstances, in the absence of conclusive evidence to the contrary, the presumption is in favor of the appellant. The burden of proof is on the party who sets up the objection of "prior use" against the patent.

The second claim is for a combination, embracing, as one of its elements, the arrangement or seat for the dropper last described, and if that was new, this combination must also be new. And indeed we shall look in vain in any previous

machine for the lever here described in the combination with which it is associated. Standing by itself, the lever as well as the hinged joint was exhibited in the experimental machine of Remy & Kelly. But as in our view that machine was never brought into successful operation until after Brown's invention was completed, we do not regard the fact referred to as seriously affecting the question. The particular combination described by the patent under consideration is new, and the claim is valid.

This is the proper place, however, to notice an objection made against the three patents conjointly -- namely reissues 1036, 1038, and 1039. It is contended that they are for substantially the same combination. We do not think that this is the fact. We regard the reissue 1036 as a patent for the corn planting machine in outline, comprising its most essential elements, namely constructed principally of framework "substantially as and for the purpose set forth" in the specification, containing the two frames or parts, loosely or freely connected, one supported by the runners, the other by the wheels following them, each having its distinct purpose as indicated; and the seeding apparatus being arranged for planting in check rows, whether automatically or by hand, the method of each being shown in the specification. This patent does not call for a hinged joint with its particular

appliances, or for a particular arrangement of seat or location for the dropper. Reissue 1038 is for a different combination, including the separate parts or frames, the runners, the wheels, and lastly the hinged joint so arranged that one part of the framework may be raised and lowered on the other part. Reissue 1039 claims first a seat or platform for the dropper, on the machine, so that he may watch the cross rows and plant by them; secondly, in addition thereto, the particular device of the lever, by which the driver may raise or lower the framework that carries the dropper.

This view of the relative objects of the three patents, as we think, shows that they are not obnoxious to the objection raised.

Having already examined the question of infringement as it respects reissues 1036 and 1038, it remains to inquire whether the appellants have infringed reissue 1039. Of this there can be no doubt. In both of their machines the dropper is mounted on the machine on a seat or platform arranged for that purpose, so as to observe the cross rows, and drop by them; and in both, levers are used (not precisely in the form of Brown's, but equivalent thereto, and substantially the same), by which the driver may raise or lower that part of the framework that carries the dropper and the seeding devices. In Bergen's machine, this lever is the rear frame itself, which is hinged to the rear part of the seeding frame, and is operated by the driver by tilting it back and forward by his own weight.

It is unnecessary to examine reissue 1040, as there is no pretense that the appellees have infringed that patent.

The second group of reissues is next to be considered.

The first, No. 1091, after describing the entire machine as finally perfected by Brown, prior to the issue of his second patent, May 8th, 1855, has the following claims:

"First. In combination with a seed planting machine that is operated by hand, the placing of both the driver and the person who operates the seed slides or valves, upon the machine, in such position as that each may attend to his particular duty

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without interfering with that of the other, substantially as described."

"I also claim, in combination with a seed planting machine, that is operated by hand, and upon which the driver and the person who works the seed slides or valves sit or stand, the so locating of said seats or stands, as that the weight of one of the persons may be used to counterbalance or overbalance the weight of the other, for the purpose of more readily raising or lowering the seeding apparatus, substantially as and for the purpose described."

These claims are analogous to those of reissue 1039, and the first is anticipated by the machines of Joab Brown, constructed and altered in the spring of 1851. It is not pretended that the appellant placed both attendants on his machines until the spring of 1853, when he placed the driver's seat, as well as the dropper's, on the twelve machines which he manufactured and sold at that time.

The second claim is for the relative location of the seats for the driver and operator, such that one of them may overbalance the weight of the other, and thus more readily raise or lower the seeding apparatus. The claim is made only in reference to machines operated by hand, on which both driver and operator sit or stand. The seats themselves can be of little consequence in this combination. The relative location of the attendants is the material thing.

The process of tilting the frame of a seed planter on the wheels as a fulcrum by shifting the weight of the driver standing or sitting thereon was exhibited in Kirkman's machine in the spring of 1852 and in Farley's model, made in January and publicly deposited in the Patent Office in February, 1853.

The appellant does not fix the date of his alleged improvement earlier than the 20th of April, 1853, it being first introduced into the twelve machines built in that year. He was anticipated, therefore, by Kirkman and Farley so far as their machines were identical with his. They do not come within the literal terms of his claim which refers the improvement only to machines operated by hand, and on which the operator

is carried. Kirkman and Farley had no operator, and of course had none on their machines. Was this difference material? The device was not altered by Brown substantially in form, operation, or purpose. The only difference was the presence of the dropper on the machine, making a greater weight to be raised than existed before and applying it to a check row corn planter. It seems to us that it was simply the application of an old device to a new use.

We are of opinion, therefore, that reissue 1091 is void.

The claim of reissue 1092 is as follows:

"What I claim under this patent is, in combination with a seed planting machine, operated by hand and having its seeding devices forward of the center of the wheels and forward of the driver's seat and a hinged connection, the locating of the seat in such relation to a line drawn through the centers of the wheels or ground supports as that the occupant of said seat may, by moving himself, or throwing his weight forward or backward on his seat, without the necessity of rising, walking, or standing over or near the seeding devices, force the seeding apparatus into, or raise it from, the ground, substantially as described."

After a careful consideration of this claim, we are brought to the conclusion that the subject of it is not patentable. Prior inventions having placed the driver on the machine, and having constructed the platform in such manner that his movement backward or forward would raise or lower the seeding apparatus, and the seat itself not being claimed as new, it can hardly be contended that the proper location of the seat for effecting the same object required the exercise of inventive power.

The next patent, reissue 1093, after describing the machine as before, with its runners and front frame, its wheels and rear frame, its seat for the driver over the wheels, and contrivance for raising and lowering the front frame, its seat for the dropper over the runners, its hinged joint &c.;, concludes as follows:

"There are two points in this machine that have unvarying positions or heights with regard to the ground, *viz.,* the point

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of the tongue, as its height is defined by horses' necks, to which it is attached, and they standing of course upon the ground, and the journals or axle of the covering or supporting wheels F F, as they roll on the ground, and between these fixed points, the hinged connection between the front and rear part of the machine, is made so as to admit of raising or lowering the seeding devices."

"Having thus fully described the nature and object of this part of my invention, what I claim under this patent is, in combination with a seed planting machine that has a hinged or yielding joint between its fixed points of support, and with its seeding devices between said points, the so connecting of the parts between said fixed points of support as that that portion of the machine carrying the seeding devices may be raised up out of the ground by the attendant riding on the machine, and be carried by the tongue or horses' necks, and the supporting wheels, substantially as and for the purpose described."

The precise thing claimed here, after defining the combination of which it is to form a part, is, *"the so connecting of the parts"* as to produce the result mentioned, *"substantially as and for the purpose described."* If this means to include any and every connection of the parts which will produce the result "substantially as described" (which result is to enable the attendant, riding on the machine, to raise that portion of the machine carrying the seeding devices out of the ground so as to be carried on the horses' necks and the wheels), then the claim was anticipated by Kirkman, for the connection of the parts in his machine enabled the attendant, riding on the machine, to raise the front part which carries the seeding apparatus, out of the ground, when it would be suspended on the horses' necks and the wheels, and he had a hinged joint between the fixed points of support. The same might be said of the machine of Remy & Kelly, if it were to be taken into consideration in determining this question. But if the claim is to be construed as limited to the mode of connecting the parts in the appellant's machine (being a hinged connection between the two frames, and therefore different from Kirkman's machine), and to the means by which the final result was accomplished -- namely by the

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shifting of the driver's weight on the machine (and therefore different from Remy & Kelly's), then this objection would be obviated. But thus modified, it would substantially correspond with reissue 1038, being simply for a mode of doing that, with the driver on the machine, which was done before, under 1038, with the driver on the ground, employing only in addition the mode of operation used by Kirkman.

In other respects the two combinations would be precisely the same.

We are of opinion, therefore, that this patent cannot be sustained.

The next patent, reissue 1094, is for a matter too frivolous to form the subject of invention. It is simply for a peg or stop to prevent the rear part of the machine from tipping so much as to dump the driver on to the ground. No mechanic of any skill would construct a machine of the character described without providing some such arrangement. This patent is not sustained.

The latest patent of the series, reissue 1095, is for a peculiar valve in the tube through which the seed is dropped to the ground, called the flipper valve. When the machine is in motion, the time taken for the seed to drop from the hopper to the ground, supposing it to drop from a height of only 18 or 20 inches, would carry it forward more than a foot after its discharge, and thus carry it beyond the cross row. It became important, therefore, to drop the seed from a point near the ground, or from the bottom of the tube instead of the hopper, at each movement of the lever by the operator. To do this required two movements, one for dropping the seed from the hopper into the tube, the other for dropping it from thence to the ground. By the device described in this patent, which was noticed at the commencement of this opinion, both of these movements of the seed take place at the same instant and by one movement of the hand, the seed for one hill being dropped into the ground at the same time that the seed for the next hill is dropped into the tube.

The claim of the patent is in the following words:

"Having thus fully described my invention, what I claim

under this patent is so combining with a lever, by which both may be operated, a valve or slide in the seed hopper and a valve in the seed tube, as that a half motion of the lever by the operator riding on the machine, by which they are operated, shall both open and close the seed passages at regular periods, and

pass measured quantities only, substantially as described."

As before stated, the mode by which this was effected was by placing in the seed tube a long slender valve composed of a slip of metal, suspended on a pivot in the middle, so that when one end was pushed forward the other end would be pushed backward. In this way each movement of the upper extremity would let a charge of seed into the tube on one side and keep it there, whilst the simultaneous movement of the lower extremity would discharge the previous charge on the other side.

The appellees endeavored to show that this apparatus was anticipated by the inventions of Charles Finn and Jarvis Case, before mentioned. [Footnote 21] Finn says that he invented his machine in the summer or fall of 1851. The seed dropping apparatus consisted of a vibrating side or back to the seed tube, which required two movements, one backward and the other forward, for dropping each hill of corn, alternately opening and closing the tube. It was operated by levers in connection with the valves in the hoppers. But each hill or check row required one movement of the lever to let the seed into the tube and a reverse movement to let it out. And this double movement was repeated at every check row. Whereas, by Brown's apparatus both results were accomplished by a single movement -- a forward movement effecting a dropping for one check row and a backward movement effecting it for the next. It is evident that although there was a similarity between the two processes, they were essentially different. It may be that Brown's is only an improvement on the process used by Finn. If this be so, still it is only the improvement -- that is, the machine as he uses it -- that he claims by his patent.

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The machine of Case, which he swears he constructed in March, 1853, is still more unlike Brown's in form, though less unlike in operation. It has two independent valves, one in the hopper to let the seed into the tube and one at the bottom of the tube to let it out. These two valves are so connected by a chain or string that both are opened at once. A spring is arranged to shut them as soon as

possible, so as to prevent the seed admitted above from escaping below until the next movement of the lever. This apparatus, it is true, requires but one movement of the hand for each dropping, the spring performing the other. But the spring has to be drawn by the force of the hand so as to have the necessary recoil. The same strength has to be exerted by the operator as if he made both movements with his hand. It is evident that this device is also different from the appellant's. The two have similarities, but they are essentially distinct machines.

But it is insisted that Brown, in 1860, admitted in a newspaper article that the process in question was old. We have examined the article, and according to our construction his declaration amounted in substance to nothing more than that the principle of the double drop was old (which was probably true) and that Case's application of it was old (which may or may not be true), but it does not contain or amount to an admission that his own peculiar process was old.

We think, therefore, that this patent must be sustained.

The last patent is clearly infringed by the Selby machine. The flipper valve and mode of operating it are almost precisely the same.

In the case of the Bergen machine, it is contended that no lever is used for moving the connecting rod backward and forward between the hoppers. A fixed perpendicular handle is used instead of a lever. The question is whether that is such an alteration as to change the character of the combination. The object in view is to put into the hand of the operator something by which he can move the connecting rod, and consequently open the valves, the instant he

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comes to the cross-row. It is of no consequence in the world whether the cross-bar moves in the same direction with his hand or in the reverse direction. A lever working on a pivot or fulcrum between the hand and the connecting rod would cause the latter to move in the reverse direction to that of the hand; a lever working on a pivot or fulcrum below or beyond the connecting rod would cause the latter to move with the hand; so would a lever or handle firmly fixed to the rod. The

claim is for "a lever or its equivalent," in combination with other things. Whilst in most cases a mere handle is not the equivalent of a lever, because not capable of performing the same functions, in this case it is an equivalent, because it does perform precisely the same function in substantially the same way.

In our judgment, both machines are an infringement of the patent.

We have thus, with perhaps unnecessary detail, gone over and considered the various questions and points raised in these cases. The result is that the reissued patents, numbered respectively 1036, 1038, and 1039, of the first series, and 1095, of the second series, are sustained as good and valid patents, and that the appellees are infringing the same.

Decrees reversed and the causes remanded to be proceeded in according to law.

[Footnote 1]

Infra, pp. 90 U. S. 206 -207.

[Footnote 2]

Infra, pp. 90 U. S. 207 -208.

[Footnote 3]

Infra, p. 90 U. S. 208 .

[Footnote 4]

Infra, p. 90 U. S. 208 .

[Footnote 5]

Infra, pp. 90 U. S. 209 -211.

[Footnote 6]

Infra, pp. 90 U. S. 211 -212.

[Footnote 7]

Infra, pp. 90 U. S. 212 -213.

[Footnote 8]

Infra, pp. 90 U. S. 214 - 216.

[Footnote 9]

Infra, pp. 90 U. S. 233 -234.

[Footnote 10]

Supra, p. 90 U. S. 195 .

[Footnote 11]

See a drawing of it, *supra,* p. 90 U. S. 190 , Fig. 7.

[Footnote 12]

See a drawing of it, *supra,* p. 90 U. S. 190 , Fig. 8.

[Footnote 13]

See a drawing of it, *supra,* p. 90 U. S. 191 , Fig. 9.

[Footnote 14]

These rollers were shown only in the model. They do not appear in the drawing on page 90 U. S. 191 .

[Footnote 15]

See a drawing of it, *supra,* p. 90 U. S. 192 , Fig. 10.

[Footnote 16]

See a drawing of it, *ib,* Fig. 11.

[Footnote 17]

See the drawing of it, *supra,* p. 90 U. S. 193 , Fig. 12.

[Footnote 18]

See a drawing of the principal one, the last, *supra,* p. 90 U. S. 193 , Fig. 13.

[Footnote 19]

See a drawing of it, *supra,* p. 90 U. S. 196 , Fig. 16.

[Footnote 20]

See a drawing of Selby's machine, *supra,* p. 90 U. S. 197 , Fig. 18.

[Footnote 21]

See drawings of these, *supra,* p. 90 U. S. 200 , Figs. 23, 24, 25, and 26.

MR. JUSTICE CLIFFORD, with whom concurred JUSTICES MILLER and DAVIS, dissenting.

Applicants for a patent are required to file in the Patent Office a written description of their invention and of the manner and process of making, constructing, and using the same in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, and use the same, and in the case of a machine he must explain the principle thereof and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions. Patents granted without

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a compliance with those conditions are invalid, as the express requirement of the Act of Congress is that every inventor or discoverer shall do so before he shall

receive a patent for his invention or discovery. [Footnote 2/1]

Letters patent were granted to the complainant on the second of August, 1853, to take effect from the second of February prior to the date of the patent. Seed planter is the name of the invention given in the patent, but in the introductory part of the specification it is denominated "new and useful improvements in seed planters for planting corn and smaller grains." Very minute description is given of the machine and of the several devices of which the machine is composed for the declared purpose of enabling others skilled in the art to make and use the invention. Suffice it to say, without entering into details, that of all the numerous devices described as ingredients of the machine not one of them is new, nor is it claimed that the patentee either invented the machine or any one of the ingredients of which it is composed. What he claims in that patent is as follows:

1. The oscillating horizontal wheels or distributors in the bottom of the hopper, having slots and tubes of various sizes, in combination with the stationary caps and pins for the discharge of different kinds and qualities of seeds.

2. He also claims the arrangement of the covering rollers, mounted as described, and performing the functions of covering the seed, elevating the cutters in turning the machine, and also in adjusting the cutters to different depths.

Tested by the descriptive portion of the specification the better opinion is that the second claim is also for a combination, but in the view taken of the case it is unimportant whether it be regarded as a method of accomplishing the described result or as a combination of the described ingredients to effect the same end, as it is quite clear that the patentee does not claim that he is the original and first inventor of anyone of the several devices of which the entire machine is composed. Beyond all doubt, the invention consisted

of the two combinations described in the respective claims, and it is equally certain that the letters patent were in all respects sufficient to secure the full enjoyment of the patented machine to the patentee. Nevertheless the patentee surrendered the

same, and on the sixteenth of February, 1858, the same was reissued to him with amended specification which contains only one claim. Instead of claiming a combination of old ingredients, as in the original patent, he claimed in the reissued patent a shoe for opening a furrow, which has a convex edge in front and a seeding tube in its rear end, so that it may cut through any grass, open out a furrow, and hold it open until the seeds are deposited in the same, substantially as set forth in the specification.

Like the original patent, the reissued patent was in form both operative and valid, but inasmuch as it was not sufficiently comprehensive to supersede all other improvements, the patentee surrendered it for a second time and caused the original invention to be reissued in five parts, embracing several claims, all of which except one are involved in the present action.

Surrendered patents cease to be a cause of action from the moment the surrender takes place, nor can the owner of the patent recover, even for an infringement which preceded the surrender, unless the claim for profits or damages had passed into judgment before the surrender took place. Such a patent, though inoperative as a cause of action, may be admitted as evidence to support or disprove an issue that the reissued patent is not for the same invention as the original. Reference may also be made to such patent, as to a repealed statute, to aid in the construction of a reissued patent if the latter is ambiguous, but it ceases to be operative for any other purpose just as much so as a repealed statute, and can never have the effect to enlarge or diminish the operative words of a reissued patent.

Patents are public grants, and every person claiming any right under such an instrument must show that the right claimed is secured by the instrument; nor can he be benefited by showing that the right claimed was secured by a

surrendered patent unless the reissued patent also secures the same.

Viewed in the light of these suggestions, it is clear that the rights of the complainant in this case depend solely upon the last mentioned reissued patents, which are the patents mentioned in the bill of complaint and which it is alleged by the complainant that the respondents have infringed.

Defenses of various kinds are set up by the respondents to the allegations of the bill of complaint, as follows:

1. That the complainant is not the original and first inventor of the improvements described in the said several patents mentioned in the bill of complaint.

2. They deny that the said new patents were issued in good faith, and they allege that said reissued patents are not for the same invention as that described and embodied either in the original patent or in the prior reissues of the original patent.

3. That the five last mentioned reissued letters patent are severally invalid in law and void and of no effect, and that they do not confer any such right or monopoly to the complainant as he alleges and pretends to claim.

Enough has already been remarked to show that the original patent was a combination of old ingredients by which the described result was effected, or, in other words, that the patented invention consisted in a new combination of the described ingredients, every one of which was proved to be old. Old ingredients are not the proper subjects of letters patent in any other form than as a combination, for the plain reason that nothing is the proper subject of a patent which is not both new and useful.

Reissued patents must be for the same invention as the original, and that condition is just as applicable to a second reissue as to the first; nor is the second reissue relieved in any respect from the full force of that condition in a case where the invention in the reissue is divided into several parts.

Undoubtedly a new and useful combination consisting of old ingredients may be the proper subject of letters patent if the combination produces a new and useful result, but the

act of Congress does not authorize the patentee to surrender such a patent and to reissue the same for the separate ingredients, for the plain reason that the ingredients are old, and for the additional reason that a patent for a separate ingredient is not the same as the combination of several ingredients. [Footnote 2/2]

Authorities to support these propositions are unnecessary as they are self evident, nor is it necessary to do more than to refer to the several claims of the several reissues under consideration to show that everyone of those reissues are invalid, both for the reason that the alleged improvement is old and also for the reason that the invention embodied in each of the reissued patents is different from the one secured by the original patent. Even the Court here admits that each one of those reissues is "for a distinct and separate part of the original invention alleged to have been made by the complainant," full proof of which is exhibited in the claims of the respective reissued patents. [Footnote 2/3] They are as follows:

1. No. 1036. Appended to that patent is a claim much more comprehensive than is to be found in either of the four other patents, but it is plainly not a claim for a combination, nor one for the whole machine, as was admitted in argument by the complainant. What he there claims is a seed planting machine constructed principally of framework, the front part of which is supported on not less than two runners or shoes with upward inclining edges, and the rear part is supported on not less than two wheels, the latter being arranged to follow the former.

Evidently that claim is not intended to cover the whole machine; nor would it benefit the complainant even if it could receive that construction, as it is not pretended that he was the original and first inventor of such a planting machine, nor that the specification of the original patent professed to describe such an original invention. Machines of the kind have existed for a very long period before the

date of the complainant's patent, even for a period whereof the memory of man runneth not to the contrary.

2. No. 1037. Nothing is claimed in this patent except the construction of a shoe or runner for a seed planting machine, with an upward inclining edge, with its point sufficiently raised so that it will climb up and over, or cut and break through intervening obstacles without materially forcing the earth laterally at its front part, and widening towards the rear end so as to open a furrow in which the seed to be planted may be deposited, and long enough to furnish a support to the framework of the machine. Explanations of that patent are certainly unnecessary, as it is plain that the claim is for distinct and separate ingredients of the combination embodied in the original patent.

3. No. 1038. Under this patent, the complainant claims a hinged joint between the point of the tongue and the rear part of the machine in combination with a seed planting machine, so that one part of the framework may be raised, lowered, adjusted, and supported on the other part. Nor is any argument necessary to show that the claim of the patent is for one of the separate and distinct ingredients of the combination embodied in the original patent, all of which were confessedly old.

4. No. 1039. Two claims are made in this patent as follows:

(1) The seat for the attendant, or, in the language of the claim, the mounting of the attendant upon the machine or seed planter, wherein the seed dropping mechanism is operated by hand, in such a position that he may readily see the previously made marks upon the ground, and operate the dropping mechanism to conform thereto.

(2) He also claims a lever, in combination with a seed planting machine, or its equivalent, by which the driver or second attendant may raise or lower that part of the framework that carries the attendant and the seeding devices.

Manifestly the lever or its equivalent is the principal subject matter of that claim, reference being made to certain other parts of the seed planter merely as a means of describing the functions to be performed by the lever, and the

results to be attained by its use; nor does it require any argument to show that the lever is old, as it is matter of common knowledge that it was well known long before the original patent of the complainant was issued.

5. No. 1040. Two claims are also made by the patentee in this patent:

(1) He claims a pair of auxiliary wheels and an axle, in combination with the seed planting machine, carried mainly upon not less than two runners and two covering wheels, for the double purpose of taking a portion of the weight off from the runners and the other wheels and for affording means of readily converting the machine from a hand planter to an automatic seed sower.

(2) He also claims hanging the axle of the auxiliary wheels on hinged or adjustable arms or levers, so that more or less of the machine may be placed upon the auxiliary wheels.

All necessity for any remarks upon those claims is superseded by the admission that they are not infringed by the respondents.

Four of the five reissues are included in the charge, and the complainant also charges that the respondents have infringed five other reissued patents held by him, which also secure to him the exclusive right to the respective improvements therein described, all of which appertain to the same machine for planting corn and smaller grains.

Reference will first be made to the original patent from which those several reissues are derived. Like the preceding reissued patents, these were all derived from a single original patent, issued May 8th, 1855, as appears by the record, which it is claimed is an improvement upon the prior original patent.

Doubtless the patentee made some change in the original machine, as appears by the descriptive portion of the specification -- as for example, he enlarged the rollers, increased the length of the side pieces, connected those pieces by cross pieces, and constructed the frame in two parts, denominated front and rear,

placing the long seat for the driver on the front end, in order that he may slide forward or back, to tilt the machinery when necessary to deepen the furrow, or

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to raise the front of the shoes from the ground, as occasion calls for such a movement; but he invented no new ingredient or device, nor did he introduce any element into the machine which was not previously well known, all of which will sufficiently appear from the claim when compared with the drawings, without reproducing the details of the specification annexed to the patent. It contains but a single specification in that regard, which, in substance and effect, is as follows: what he claims is the runners, with their valves, in combination with the hoppers and their plates, together with the adjustment of the valves by means of levers and cams, and the driver's weight, for the purpose of carrying and dropping seeds by each vibration of the lever, and to regulate the depth of the planting.

Tested by the description contained in the specification, it is not doubted that the patent was a valid one for the described combination, which beyond all doubt is composed of all ingredients. Regarded as an invention for a combination, it may be regarded as an improvement upon the original invention described in the first mentioned patent, but it is quite clear that it contains no devices except such as had long before been well known to mechanics.

Though operative and valid, still it was not satisfactory to the complainant, because not sufficiently effective to shut out other improvements for planting seeds. Accordingly, on the tenth of November, 1857, he surrendered the patent and the same was on the same day reissued to him with a single claim, as follows: he claims the locating the seat for the driver in the rear of the supporting axle in combination with the hinged frames or hinged joint, so that as the driver moves forward or back, on his seat, the rear frame may act as a lever for lowering or raising the seed part of the machine, and thus throw it into or out of the ground, as circumstances may require.

Probably it would be difficult to frame a claim which would more exactly embody the true nature of the actual improvement, but still it was not satisfactory to the complainant, and on the eleventh of December, 1860, he surrendered

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the patent, and the same was reissued to him in five separate patents, as follows:

1. No. 1091. Two claims are contained in this patent as follows:

(1) The placing of both the driver and the person who operates the seed slides or valves in such a position on the seed planter that each may attend to his particular duty without interfering with that of the other.

(2) The so locating the seats or stands for those persons, in combination with the machine, that the weight of one of the persons may be used to counterbalance or overbalance the weight of the other for the purpose of more readily raising or lowering the seeding apparatus.

2. No. 1092. He claims in this patent the locating of the seat in the machine in such relation to a line drawn through the center of the wheels or ground supports that the occupant of the seat may, by moving himself or throwing his weight forward or backward on his seat, without the necessity of rising, walking, or standing over or near the seeding devices, force the seeding apparatus into or raise it from the ground.

3. No. 1093. His claim in this patent is the so connecting of the parts between the fixed points in the described machine that the portion of it carrying the seeding devices may be raised up out of the ground by the attendant riding on the machine and be carried by the tongue or horses' necks and the supporting wheels.

4. No. 1094. Where he claims a lock block or stop, in combination with the machine, which prevents the rear part of the frame from descending so low as to strike the ground or inconvenience the occupant of the seat upon the rear portion of the frame.

5. No. 1095. His claim in this patent is for a valve or slide in the seed hopper and a valve in the seed tube, so combining with a lever operating both that a half motion of the lever by the operator riding on the machine, shall open and close the seed passages at regular periods and pass only the right quantities.

Most of these ten reissued patents are for a single ingredient

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of the combinations described in the two original patents, and every one of the others is for a separate and distinct part of one or the other of those combinations; and the rule of decision set up by the complaint is that he may mass these several patents just as if the several ingredients were all described in one patent embracing a claim for a combination of each and every of the respective ingredients included in these ten several patents. Such a theory, in my judgment, is simply absurd, and it is certain that it finds no support in any decided case nor in any treatise upon the rules and practice in patent cases.

Argument to show that such is the theory of the present suit is scarcely necessary, as it is plainly shown in that part of the bill of complaint which alleges that the improvements and inventions contained in those several letters patent constitute separate parts of an entire machine for seed planting, and that they may be constructed for use and used in one machine in that department of agriculture; and the complainant charges that the respondents have constructed machines and used the same and vended the machines to others to be used in imitation of all those improvements and inventions except the improvement described in the reissued patent No. 1040, which it is admitted is not infringed by the respondents.

All the ingredients described in those ten reissued patents are old, and it was admitted at the argument that no one of the patents contains a claim for a combination of the several ingredients described in the said several reissued patents, and that the case rests on the basis that the several claims or some of them are valid though not amounting to a combination.

Valid patents may be granted for a new combination of old ingredients, provided it appears that the new combination produces a new and useful result, but the invention in such a case consists entirely in the new combination, and any other party may, if he can, make a substantially different combination of the same ingredients, or he may use any number of the ingredients less than the whole, for the reason

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that the monopoly of the patent extends only to the combination and not to the ingredients separately considered. [Footnote 2/4]

Patents may also be granted for a machine or for a separate and distinct device, but it cannot be held that such a patent is valid unless it be proved that the patentee is the original and first inventor of the thing patented. [Footnote 2/5]

None of the separate devices patented in those reissued patents are new, and it being conceded that no one of the patents contains any such a combination as that embodied in either of the original patents, it is clear in my judgment that the decree of the circuit court should be affirmed, unless the theory that these several patents can be massed and be by judicial construction converted from patents for separate and distinct ingredients into one patent for a combination of all the ingredients described in the several patents mentioned in the bill of complaint.

Courts of justice cannot accomplish such an object by construction nor in any other mode, for several reasons:

(1) Because the province of construction is restricted to the ascertainment of the meaning of the language employed in the grant.

(2) Because the object can only be accomplished by the surrender of these patents and by a reissue of the original patent, which is a matter within the exclusive jurisdiction of the commissioner.

(3) Because each of these patents is a separate and distinct grant.

(4) Because the court in construing such a grant is restricted to the language employed by the granting power.

(5) Because several patents for several separate and distinct devices do not in law amount to a patent for a combination, and, therefore, cannot so be declared by a court of justice.

The CHIEF JUSTICE took no part in the judgment given in this case, the argument having been had before he was appointed. The case was held long under advisement, and the opinions were not given to the Reporter until long after the judgment was rendered.

[Footnote 2/1]

16 Stat. at Large 201.

[Footnote 2/2]

Gould v. Rees, 15 Wall. 194.

[Footnote 2/3]

Gill v. Wells, 22 Wall. 1.

[Footnote 2/4]

Vance v. Campbell, 1 Black 428; *Prouty v. Ruggles,* 16 Pet. 341.

[Footnote 2/5]

Seymour v. Osborne, 11 Wall. 355.