v.33F, washburn & moen manuf'g co. *et al. v.* beat-em-all barbwire co. *et al.*

Circuit Court, N. D. Iowa, E. D.

January 5, 1888.

PATENTS FOR INVENTIONS—NOVELTY—PRIOR USE—BARBED-WIRE FENCES.

Letters patent No. 157,134, issued to J. F. Glidden, November 24, 1874, for an improvement in wire fence, *held* void, on the ground that it was but a combination of known elements, of which the patentee was not the inventor.

In Equity. On bill for injunction.

Proceeding instituted by complainants, the Washburn & Moen Manufacturing Company and Isaac L. Elwood, to restrain defendants, Beat-Em-All Barb-Wire Company and others, from infringing letters patent No. 157,124, issued to J. F. Glidden, November 24, 1874, which complainants now own.

Offield & Towle, B. F. Thurston, and Coburn & Thatcher, for complainants.

Blair & Dunham and C. J. Hunt, for defendants.

SHIRAS, J. The complainants, as the owners by assignment of letters patent No. 157,124, issued to Joseph F. Glidden, under date of November 24, 1874, and declared to be for an improvement in wire fences, file the present bill for the purpose of restraining the defendants from continuing the manufacture of barbed wire at Waterloo, Iowa, on the ground that the wire so manufactured by defendants includes and embraces the improvements covered by the letters patent above named. In substance, the defenses interposed are—*First*, want of useful novelty in the Glidden patent; *second*, that, if there are elements of novelty in the patent in question, Glidden was not the first inventor thereof; *third*, that even if it be true that Glidden was the first person to construct the barb or spur upon fence-wire by winding around the plain wire a short piece of other wire, nevertheless he had dedicated or abandoned such improvement or invention to public use before he obtained the present patent.

In order to ascertain the elements of novelty, if any, embraced within the combination described in this patent No. 157,124, it is necessary to ascertain the progress that had been made in the development of what is now known as barbed-wire fences at the time Glidden entered the field,

in 1873. The device of stretching plain wire from post to post for fencing purposes was then well known, and in common use. On June 25, 1867, letters patent had issued to L. B. Smith for the construction of a wire fence equipped with rotary spools, armed with four short wire spurs projecting from the spools, these being strung at intervals on the fence-wire, for the purpose of preventing animals from rubbing against the same. July 23, 1867, W. D. Hunt procured a patent for "providing the wires of a wire fence with a series of spur-wheels;" it being declared in the specifications that the spurs should be sharpened so that, by reason of these sharp spur-wheels, animals would be deterred from pushing against the fence, or attempting to break over it. On February 11, 1868, there issued to Michael Kelly letters patent No. 74,379, in the specifications of which it is said: "My invention relates to imparting to fences of wire a character proximating to that of a thorn hedge." In brief, this was accomplished by putting upon the fence-wire so called "thorns" of iron or steel cut from a plate in such shape as to present two sharp points at opposite ends with a hole in the middle, to enable the same to be strung upon the fence-wire. After being strung upon the wire, they were fastened thereto by a blow upon the side. They might be placed so as to stand all upon one plane, or irregularly on many planes. It is also stated that, "I can, where it is desirable to increase the strength of the wire, lay another wire of the same or a different size along-side of a thorn-wire, and can twist the two together by any suitable mechanism. This construction is represented in figure 2. It tends to insure regularity in the distribution of the points in many different directions." In November, 1868, a second patent was issued to Michael Kelly, including various improvements in the mode of making metallic fences. In the specifications, we find it stated that "Fig. 8 represents a thorn prepared from a common round wire cutting it off obliquely in the same manner in which the thorn is prepared in Figs. 3, 4, and 5, but griped in machinery, (not represented,) so as to compress it near the middle and adapt it to be more readily locked." The claim in the patent to Glidden is in the following words:

"A twisted fence-wire, having the transverse spur-wire, D, bent at its middle portion about one of the wire strands, *a*, of said fence-wire, and clamped in position and place by the other wire strand, 2, twisted upon its fellow, substantially as specified."

When Glidden applied for the patent, in 1873, the use of a plain wire for fencing was old; the use of a twisted wire to increase the strength of the fence was old, being found in the Kelly patent of February 11, 1868; the use of spurs or sharp points attached to the fence-wire to prevent animals from rubbing against, and thereby breaking, the same, was old, being shown in the patents of Smith, Hunt, and Kelly; the making of the spur, thorn, or barb out of a short piece of round wire was old, being shown in the second patent to Kelly, issued November 17, 1868.

Novelty in the Glidden combination is predicated of two things,—one in the mode in which the spur or barb is attached to the fence-wire, to-wit, by coiling it around the same, so as to leave the two ends of the

short wire projecting from the fence-wire; the other, in clamping the spur thus formed in its proper place by means of the second wire twisted around the first.

Examining these claims in the reverse order, is there novelty shown in the use made of the second wire in the Glidden combination? The claim is that the second wire aids in keeping the spurs in their proper place. When the spurs are placed upon the fence-wire, motion in two directions is possible, to-wit, laterally along the wire, and by revolution around the wire. If the spur is drawn, tightly upon the wire, freedom of motion in both directions is more or less prevented. The twisting of the second wire around the first aids in preventing freedom of motion of the spur, not by so clamping the spur as to bind it to the first wire, but by the blocking effect of the second wire; that is to say, if the spur be moved either laterally or circularly on the first wire, it will strike against the second wire, and further motion will be thus prevented. This is certainly the main effect produced by the second wire. It is true that if care is exercised in the making of the combination, and the second wire is tightly drawn, it will have some slight effect upon the spur by reason of the pressure against the same, thus aiding in the keeping it in place; but, practically, in wire as usually manufactured, the beneficial results of the second wire are almost wholly, if not entirely, due to what I have termed the blocking effect of the second wire. Is not the same true of the form of wire shown in the Kelly patent of February 11, 1868, and denominated "Figure 2" in the drawing thereto attached? The barbs or spurs having been prepared with two sharp points, are strung upon the fence-wire, and are affixed thereto by a blow struck upon the side of the barb. The mechanical effect of the blow thus struck is the same as the drawing of the coiled spur in the Glidden combination. In both cases, the aperture in the barb through which the fence-wire passes is lessened for the purpose of causing the barb to adhere to the fence-wire. Then, in both combinations, a second wire is twisted around the fence-wire with the barbs thereto attached. When twisted around a wire having the Kelly barb on it, the second wire, if carefully and tightly drawn, will tend to clamp the barb against the fence-wire. Its effect in this particular would not probably be very great; but the difference in the operation in this respect in the Kelly and Glidden combinations would be a difference, and that but slight, in the resulting effect, and not at all in the mode of its operation. In the Kelly, as in the Glidden combination, the principal effect produced upon the barb by the use of the second twisted wire results from the fact that the twisted wire acts as a block to the motion of the spur, either laterally or circularly, upon the first or fence-wire. This blocking effect is absolutely identical in both combinations; that is, in each form of wire, motion of the barb is checked by the barb coming in contact with the twisted wire. It may be true, as was strongly urged in the argument, that in the Kelly form of wire the barb can be moved somewhat in a circular direction before it is arrested by the twisted wire, whereas in the Glidden wire but little or no circular movement can be had, but it is the twisted wire that checks the

motion in both instances. Its office and function is the same, and if the barb in the one case can be moved over a greater arc of a circle than in the other, this is due to the difference in the form of the barb, and not to any difference in the manner of putting on the second or twisted wire, nor to any difference in the function it performs in the Glidden, as compared with the Kelly combination.

But it is said that in the case of *Manufacturing Go.* v. *Fuchs*, 16 Fed. Rep. 661, in the Eastern district of Missouri, Judge TREAT held that the Kelly patent did not embrace the blocking effect of the twisted wire, and that therefore it has been judicially determined that Glidden's claim to novelty in this particular is not defeated by anything found in the original Kelly patent. An examination of the case cited shows that in fact it embraced five causes, in which complainants, as the owners of the Kelly and Glidden reissued patents, sought to obtain preliminary injunctions restraining the several defendants from manufacturing barbed wire, which it was claimed infringed the rights secured to complainants by the reissued patents relied on. Judge TREAT held that both the reissued patents were void, and therefore refused the motion for injunction. The judicial *conclusion* thus reached and announced does not determine the question now under consideration, nor does it relieve this court from the duty of examining and determining it. It is unquestionably true that in comparing the original and reissued Kelly patents, for the purpose of determining whether the reissue had been unlawfully expanded, the court considered the question whether the original patent suggested the locking effect sought to be secured by the reissued patent, and reached the conclusion it did not.

The court, in that case, was dealing with the two Kelly patents. In the present case, the court is called upon to determine whether, in the use of the twisted or second wire,—the form in which it appears in the Glidden combination, covered by the letters patent No. 157,124,—any patentable novelty is discoverable, when the same is compared with the combination set forth in the drawings and specifications connected with the original Kelly patent. The question is not whether Kelly's patent secured to him this invention, but whether the drawings and specifications contain the idea or invention; for, if it is found therein, then Glidden simply appropriated that which was already known and in use. Turning to the specifications of the Kelly patent, after describing the manner of making and stringing the those or barb upon the fence-wire, we find it said that, "I term these pieces 'thorns,' and it will be observed that each presents two sharp points. They may be so placed that they will all stand in the same plane, or they may stand irregular in many different planes. I prefer the latter arrangement. I can, when it is desirable to increase the strength of the wire, lay another wire of the same or a different size along-side of a thorn-wire, and can twist the two together by any suitable mechanism. This construction is represented in Fig. 2. It tends to insure a regularity in the distribution of the points in

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many different directions." Now, certainly, the last sentence shows that Kelly understood and claimed that the use of the second wire accomplished a purpose

other and different from merely "strengthening the fence. It was a purpose connected with the barbs or points, to-wit, that of insuring their distribution in many different directions. In other words, the second or twisted wire would aid in holding the points upon the fence-wire, for it is only by aiding in keeping them fixed in position that it would "insure their distribution in many different directions." A glance at the drawing, or at a fence constructed according to the one so proposed, shows that the necessary effect of the twisted wire is to block the movement of the points, and it would seem entirely clear that it was upon this effect that Kelly relied to insure the distribution of the points in many different directions. Support to this view is found in the further statement in the specifications to the effect that "some of the advantages of my invention may be secured by simply stringing the thorns on cords of hemp or other analogous material, *holding them in place by twisting* two or more cords together." The twisting of the cords takes the place of the twisting of the wire, and the result of holding the thorns or barbs in place is intended and accomplished as much in the one operation as in the other.

Without any aid from the language of the specifications, a mere inspection of the drawing representing the use of the twisted wire would disclose at once the result obtained in the way of blocking the free movement of the spur or barb. It is a result that cannot possibly be avoided. A second or twisted wire cannot be used in the mode described by Kelly, without blocking the free lateral and circular motion of the barb, and its effect in this respect is so plain that it could not escape the notice of any reasonably skilled mechanic. If the contention of complainants in this particular is correct, and there is found patentable novelty in the Glidden patent, in the use of the twisted wire for the purpose of clamping the spur upon the fence-wire, then it would follow that, in 1873, Glidden could have obtained a patent therefore. In other words, without any change in the form of the spur or barb, he would have been entitled to a patent covering the use of the second wire for the purpose of aiding in fastening or holding the barb upon the wire. In such case, he would have presented to the patent-office a drawing and specifications exactly describing the combination shown in Fig. 2 of the drawing attached to the Kelly patent, to-wit, the twisted wires, with the barbs or spurs locked between. The utmost that he could have asserted in support of his claim to a patent therefore would have been that he perceived more clearly the beneficial effect resulting from the combination in the direction of holding the spurs upon the wire; but he could not have successfully asserted that any act or thought of his had produced or increased the beneficial effect of the twisted wire used in combination with the Kelly barb. Kelly had invented or made known the combination. The combination, when used, will aid in holding the spurs in place upon the wire, and cannot be used without producing this effect. It is an absolutely necessary mechanical result. The fact that Glidden might have perceived with greater clearness the results that

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flow from the use of the second twisted wire would not have entitled him to a patent as the inventor of such use.

So far, I have considered the question upon the theory that the beneficial effect produced by the use of the twisted wire was mainly due to what I have termed its blocking effect; that is, to the fact that when the second wire is twisted around the first or fence wire, it prevents free lateral and circular motion of the barb, by bodily occupancy of the lines of motion. This is the view in which the point was discussed by counsel on the argument, and it is in my judgment the true view to be taken of the effect intended to be produced by the use of the twisted wire in both the Kelly and Glidden combinations. It is the obvious effect of the combination, and experience has shown that in actual use it is the most beneficial result produced by the use of the twisted wire. By a strict construction of the word "clamped," used by Glidden in the claim of his patent, it might be said that he relied upon the *pressure* of the second or twisted wire against the barb to hold it in place, rather than upon its blocking effect; but the specifications show that he claimed that the twisted wire would exert a binding as well as a blocking effect, and the claim in the patent should not therefore be limited or narrowed by a strict construction of the word "clamped." This binding as well as blocking effect is present in the Kelly combination. It may not work as effectually therein as in the Glidden combination; but, as already said, the difference in resulting effect is due to the difference in the form of the barb used by Glidden, and not to any difference in the mode of applying the twisted wire, or in the function it performs. It follows, therefore, that, in using a second or twisted wire for the purpose, of clamping or fastening the, spurs or barbs upon the fence-wire, Glidden was simply repeating what had already appeared in the drawings and specifications of the Kelly patent of February 11, 1868, and that it cannot be claimed to constitute a novel feature in the combination described in the patent issued to Glidden on the twenty-fourth of November, 1874. The conclusion that the drawings and specifications of the Kelly patent of February 11, 1868, show the use of the second wire for the purpose of preventing motion in the barb, is in accordance with the finding of the United States circuit court for Northern district of Illinois in the case of *Manufacturing Co.* v. *Haish*, 4 Fed. Rep. 900.

We are thus brought to a consideration of the question whether patentable novelty in the Glidden combination is found in the mode in which the spur or barb is constructed and affixed to the wire. In view of the fact that in 1873, when Glidden applied for his patent, the use of barbs upon a wire fence, and/the use of a second or twisted wire to aid in holding them in place, and the mode of affixing the barbs upon the wire, by passing the fence wire through an aperture in the middle of the barb, and the formation of the barbs out of pieces of short wire with sharpened ends, were all known and described devices, it is not to be wondered at that the claim pf novelty asserted in support of the Glidden patent, growing out of the mode of constructing and affixing the barb, has been sharply criticised. That a barb constructed in the mode shown in the; Glidden patent is

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simple and most effective cannot be questioned. It was a valuable improvement in the art of constructing wire fences. Its

utility cannot be gainsaid; yet it is urged on behalf of defendants that the coiling of the short wire forming the barb around the fence-ware, which is all the change actually made by Glidden, was not the exhibition of-inventive thought or skill on his part, but is only an instance of mechanical improvement in the direct line clearly pointed out by the previous inventors. I do not propose, however, to do more than to state the proposition involved in general terms, for the reason that I am not called Upon, to decide this question as an original proposition, for the reason that this exact point was heard and determined by Judge BREWER in the case of *Manufacturing Co.* v. *Wire Co.*, 24 Fed. Rep. 23, in the Southern district of Iowa; it being held by the circuit judge that the formation of the barb by coiling the transverse wire between the ends around the fence-wire was first expressed in Glidden's application for a patent, and that it was novel and useful to a degree sufficient to support the combination covered by the patent now in question. Relying upon the conclusion reached in that case, it follows of necessity that the defense of want of useful novelty in the Glidden patent cannot be sustained, by reason of the fact that the mode of forming and affixing the barb by coiling the barb-wire around the fence-wire is held to be a useful and patentable improvement.

It is contended, however, by the defendants, that Glidden is not the originator of this form of barb, and that this mode of constructing and affixing the barb was known and in use long prior to the date of the Glidden patent. The burden of establishing prior Use is of course upon the defendants, and it is a defense needing clear and satisfactory evidence in its support. It cannot be rested upon mere possibilities or even probabilities, but it must be made practically certain in all essential particulars.

The first instance of prior use relied upon by defendants, is that known as the "Morley Invention." In the case already cited against the Grinnel Wire Company, decided by Judge BREWER, it was claimed that a panel of wire fence had been exhibited at Delhi, in Delaware county, Iowa, at a fair held in 1858 or 1859, containing barbs put on by coiling the same upon the fence-wire. The evidence touching the same was evidently wanting in many particulars, as is shown by the remarks of the judge to the effect "that it was not disclosed who made the fence, nor whence he came, nor where he went, nor was any part of the wire shown to be in existence. The defendants in the present case claim that one Alvin Morley was the exhibitor of the panel of fence at the Delhi fair, and that they have proved that he had used other specimens of his fence in several different ways or places, and that it consisted of a plain wire, with barbs coiled around it, made out of short pieces of wire with sharpened ends. The evidence introduced in regard to Morley's invention covers many hundred pages, embracing the testimony Of a large number of witnesses introduced on behalf of both parties, and the utmost I can do is to indicate the general or salient points connected therewith. It is an unquestioned fact that Alvin Morley owned lands in Delaware county; that his family lived in Bradford county, Pennsylvania; that for

a number of years, including 1858 to 1864, he spent a large portion of his time in Iowa, living alone, or boarding with his neighbors; that he was not of entirely sound mind, and that he died in an insane asylum in Pennsylvania in 1867, having been placed therein in 1866. It is also shown that after the beginning of the war, that is, after 1861, the county fairs of Delaware county were held at Manchester; none being held at Delhi after 1861. Whatever was exhibited by Morley at Delhi, and, in fact, whatever he did in the line of making barbed-wire fences, it is evident, long preceded the application for the Glidden patent.

On behalf of defendants, one John Dubois, a farmer living in Delaware county, testifies that in 1858 or 1859, at the time the fair was being held at Delhi, Alvin Morley came to his house, having with him a piece of fence wire which had short pieces of wire wound around it; that Morley remained with him that night; that the next day he saw a panel of fence on the fair ground exhibited by Morley, made by stretching wires from a tree or post to another post; and that the wire so used was the same or similar to that previously shown him by Morley. H. L. Bates testifies that he is a blacksmith; that he attended a fair at Delhi, and aided Morley in putting up the panel of fence that was exhibited. He describes the way the barbs were coiled around the fence-wire, testifies that he made the tools with which the short wires were twisted around the fence-wire; and describes the tools; and at the request of counsel, during an adjournment in taking the testimony, he made a set of tools, which are exhibited in the evidence; and by actual experiment it is shown that the barbs can be readily put on by means of these tools. The witness also testifies that he afterwards made a pair of shears for Morley, to be used in cutting the wire into pieces suitable for barbs. T. W. Robinson testifies that he acted as deputy-marshal at the fair at Delhi; that he rode a gray horse, and, having occasion to leave him, he hitched him for a few moments to a fence-post in the fair grounds, and on his return he found the horse's nose and breast bloody, caused by a cut on his lip, and then, on examination, he saw that the wires attached to the post had snags or barbs thereon, formed by coiling a short piece of wire around the fence-wire. This witness also testifies that in 1857 he was engaged in work upon a railroad being built through Delaware county, near which Alvin Morley had a piece of land; that Morley was frequently where witness was working, and tried to sell him the land for a pair of mules; that he had with him a piece of wire with snags on it, which he exhibited to witness, saying he was going to get it patented. George Underwood testifies that he remembers the fair at Delhi; that he was then a lad of eight or nine years of age; that, in playing with other boys on the fair grounds, he was thrown against a panel of fence, and received two cuts; one above and one below his eye, which bled freely, and the scars of which are now visible upon his face; that the cuts were caused by the wires twisted on the fence-wire. Stephen Potter testifies that he attended

the fair at Delhi; saw Morley thereat; that he was exhibiting a panel of a fence, made of wires stretched between a tree and a post, with barbs made of short wires

twisted around the plain wires; that, at his request, Morley gave him a piece of the wire with barbs on it; that he took it home with him; that he and his wife talked about it, and its effect on stock; that he had the specimen of wire in his kitchen for some time, and then put it in an old trunk, in which he kept various relics and keepsakes; that it had remained there; and was still there. And then, on request of defendant's counsel, witness went to his home, brought the specimen of wire before the notary, and the same was made an exhibit in the case. It consists of a short piece of plain fence-wire with two barbs on it, made by twisting short pieces of wire transversely around the fence-wire. J. H. Harrington testified that he attended the Delhi fair; that he saw the panel of fence made of wires situated between a small tree and posts, there being barbs on same, made of short wires twisted around the fence-wire; that what attracted his attention to it was that a man who was somewhat intoxicated rode a bull around the track, and a "lot of fellows got around him, and tried to drive the bull on the wires with him on it;" that witness then examined the wire, and noticed its construction. J. H. Peters testified that he was at the fair; saw the Morley fence; that it had prickers on it; and remembered the circumstances of the bull being ridden around: In addition to the witnesses already named, 14 others testified that they were at the Delhi fair; that they saw the panel of fence exhibited by Morley; that there were snags, or what are now called barbs, thereon; and that these barbs were made by twisting short pieces around the fence-wire. It is an admitted fact that Alvin Morley owned a small saw-mill located on the Maquoketa river. M. Eldridge testified that he is a farmer, owning a farm cornering onto the 40 on which Morley's mill was located; that in 1858 or 1859 he was frequently at the mill, hauling logs thereto, and for other purposes; that Morley had near the mill a small yard for cattle, made of posts and boards, and on part of it a wire was strung around the top, and that it had some sort of barbs on it, though he could not now describe the same; that Morley was frequently at his house. "He was always talking more or less about, getting up barbed wire and other things that he was hatching up." D. J. Johnson testified that in 1859 he was at Morley's mill; saw a calf-pen there; that on it were wires with prickers on same; that Morley showed him how he put on these prickers; that he took a piece of smooth wire, fastened one end to a tree, and the other to his wagon, and drew it tight, this wire being 20 or 30 feet long; that the prickers were made out of short pieces of wire; that Morley had two little machines, about ten inches or a foot long, with holes in them, and that with these he twisted the prickers twice around the strand wire. S. R. Young and Ichabod McDonald both testified to seeing a cow-yard at the mill, made of posts, boards, and a wire with prickers on it. H. C. Spangler testified that at one time—and he thinks it was in 1862—he went with Morley into a shed upon the latter's place for the purpose of getting a piece of machinery; that he found the shed divided into two compartments by wire stretched across the shed; that

there were barbs or prickers thereon, on which he tore his coat. It is an admitted fact that Morley had invented what is termed

a traveling cow-pen; beings a pen with three sides, placed on wheels, and-so constructed, that it might be moved; by the animal inside of it. Some seven or eight witnesses testify that at different dates, when they saw this machine, it had on it one or more strands of fence-wire with barbs or prickers on it, put on in the same manner as were the prickers on the Delhi fair exhibit. A large number of witnesses testify to the existence upon what are termed Morley's "North" and "South" farms of short pieces of fence, made of plain wires, with barbs twisted: around them. Many circumstances are detailed by the several witnesses in connection therewith, as facts aiding their recollection, and supporting the testimony they give; but it is impossible to even briefly state them within any reasonable limits.

To meet this array of testimony in support of the allegation that Alvin Morley had used a barb of the same form as that found in the Glidden combination, the complainants rely, first, oh the improbability of a man With the mental characteristics of Morley being able to conceive or invent such a fence. That he was of unsound mind is not questioned. The undisputed facts show however, that he had ability enough to attend to his business affairs, and that his mind ran on inventions of different kinds. Dr. Boomer, a witness called by complainants, who attended Morley professionally, and knew him from 1858 or 1859, testified that he was sane most of the time, and upon most subjects. Taking the whole evidence together, it wholly fails to show that, in 1858 and 1859, Morley did not possess sufficient mental ability to do all that is claimed that he did. Complainants next reliance is upon the testimony of the immediate family of Mr. Morley, to: the effect that they never heard him say anything about barbed wire or barbed-wire fences. None of Morley's family ever resided in Iowa; they remained in Pennsylvania. Eliza Morley testified that she was the widow of Alvin Morley; that he had died 18 years ago; that she was 83 years old; that she never was in Iowa; that her husband had spent a great deal of his time in Iowa; that when at home he talked fully about his business; that she did not think he ever said anything about barbed-fence wire, or fence-wire with sharp points on it. It does not appear that he ever mentioned to her any of his inventions. The testimony of the two daughters was to the same effect. George Morley, a son; testified that he visited Iowa once in 1858, 1859, or 1860; that he was at his father's mill some time, and saw no barbed wire about it, nor did he hear his father say anything about it. Frank S. Morley testified that his father never said anything about barbed wire; that he did describe the traveling cow-pasture, and made a rough model of it. It will be remembered that, in 1866, Alvin Morley had applied for and obtained a patent upon a so-called traveling cow-pen. This patent was found upon the body of Alvin Morley, and passed into the keeping of the son, Frank S. None of the family testify that the father ever mentioned any other invention save the open. This they would remember because they had the patent. The

complainants, by their own evidence, show that Morley had been working at a number of other contrivances in Iowa. If Morley never mentioned any of these to his

family in Pennsylvania, then it is of no significance if he did riot mention the wire-fence. It is, however, entirely possible that he might have talked of all of them, and the lapse of time have caused all to be forgotten} save the one covered by the patent, which served to keep that in memory. In regard to the fence exhibited at the Delhi fair, some seven witnesses testily that they were in attendance at the fair, and that they saw nothing of the Morley fence. Two copies of the Delaware Journal, then edited by J. L. McCreery, with notices of the fairs held at Delhi in 1859 and 1860, are introduced in connection with the testimony of J. L. McCreery. The papers contain a list of premiums awarded. No mention is found therein of Alvin Morley or his fence; nor is the same mentioned in the editorial comments. The papers show for themselves that only a very few items are named by the editor, and the absence of a notice of the Morley exhibit is of little moment. Complainants called as as witness W. W. Potter, son of Stephen Potter, who had produced the specimens Of wire, and identified it as a piece given him by Alvin Morley, and he testified that he had lived with his father until August, 1872, when he removed to Nebraska, being then about 20 years of age; that he remembers the old trunk referred to by his father, and its contents; that his father kept his razor in the trunk, and witness was in the habit of going to the trunk to get the razor, and that the piece of wire in question was not in the trunk. This evidence contradicts that of the father in a very important particular. It appears that the witness went from Nebraska to Chicago to give this testimony; the effect of which is to accuse his own father of perjury. There are other matters shown upon the record tending to weaken the credibility of the son; but without relying: on these, and without accusing either party of deliberate falsehood, it is possible to reconcile the contradictory testimony. The relics in the trunk which the son remembers were mainly family keepsakes, such as would be likely to be talked about, and the memory thereof fixed in that way. The piece of wire, having no such association, might readily have been in; the trunk and the son have, taken little or no note thereof. His visits to: the trunk for the purpose of getting his father's razor doubtless ceased in 1872, when the witness went to Nebraska, and after the lapse of 15 years he might easily have forgotten the fact that among the other contents of the trunk was the small piece of wire. It is possible that the son should honestly but mistakenly testify as he did; but the testimony of the father, if untrue, must have been intentionally false. From this conclusion there can be no escape. Quite a number of witnesses are introduced touching the fences erected by Morley, whose evidence strongly tends to show that no barbs were put upon the same, or, at least, that they never noticed any; but I shall not attempt to state the same in detail. It is sufficient to say that, if the evidence satisfactorily establishes the fact that Morley exhibited a panel of fence at the Delhi fair in 1859, then it is entirely probable, if not certain, that he used a similar wire in the manner the defendants' witnesses describe.

In regard to the fair exhibit there are but two solutions that are admissible: Either the witnesses for defendant have been enabled to recall

and testify to the series of facts detailed by them, because they are true; or else a number of these witnesses have intentionally concocted a false story, and have invented, knowingly, the circumstances detailed by them; thus committing perjury by the wholesale. To successfully accomplish what has been done in this regard, if the story is false, has necessitated a careful preparation of the witnesses, and a thorough and systematic-training of them, which would of necessity inculpate a very large number of persons. Not only is there an entire lack of evidence to show that such: a nefarious plan had been undertaken, but he motive can be conceived of, that would induce so large a number of well-known persons to engage in such a conspiracy. If this solution is not admissible, then it must be accepted as proved beyond all reasonable question that, as early as in 1859, Alvin Morley had, for the purpose of rendering plain wire more effectual as a fence, placed thereon what are now known as barbs, made by twisting short pieces of wire around the fence-wire, with the sharpened ends projecting there from; and that he had exhibited a specimen of wire thus prepared with barbs at the fair held at Delhi in 1859. This being proven and accepted as a fact, then valuable support is given to the testimony on part of defendant tending to show the use of this: wire by Morley in the other ways and places named in the evidence, and it must be held that such use is established.

A large amount of evidence has been adduced by both parties in regard to what are termed the Long, Stone, Hutchinson, and Beer's fences. It is unnecessary to refer thereto at any length. If I am correct in the conclusion reached touching the Morley invention, it is immaterial whether the construction of these fences antedated Glidden's patent or not, for one instance of established prior use defeats the patent as effectually as a dozen. On the other hand, if the evidence in support of the Morley invention is insufficient to establish a case of prior use, then it would be useless to claim that there was sufficient evidence to establish such priority in any of the other instances named.

Having reached the conclusion that the defendants have shown that Alvin Morley did, as early as the year 1859, make use of a barb, formed of a sharpened wire coiled around the strand or fence wire, for the identical purpose subserved by the barb in the Glidden combination, and that this use was not confined to mere experiment, but was applied in the construction of fences upon his property, and became known to his neighbors and acquaintances, it follows that Glidden is proved not to have been the first inventor of either the twisted wire, or the coiled barb forming his combination; and, if he was not the inventor of either, then the only change he made in his combination was to substitute for the-Kelly form of barb a coiled barb not his own invention; and this act of substitution cannot be held to be invention, as the result of the combination did not effect any novel result. This being so, the patent in question cannot be sustained.

Defendants also rely on the further defense of abandonment on part of: the patentee; basing this upon the facts connected with his applications for the several patents issued to him. The first application filed by

Glidden was in October, 1873, in which he claimed a patent on (1) the wires, A, A, twisted together, and combined with spurs, D, E, as and for the purpose set forth; (2) the combination of the wires, A, A, and spurs, D, C, with the twister, C, substantially as described and shown. The application was rejected for want of novelty; special reference being made to the Kelly patent of 1868. December 9, 1873, an amended application was filed by Glidden, in which he states:

"I disclaim the invention of prongs *per se* broadly, as such have been attached to wire fence before, but confine myself to what is set forth in the claim. * * * I claim the combination of the prongs or spurs, D, E, with the twisted wire, A, A, and twister, C, when the latter is used in the manufacture and support of the fence as set forth."

The application as amended was again rejected; and Glidden, by his attorney, addressed the office, under date of December 29th, urging the value of the twister as an important and novel element in the combination. No reference is made to any claim for novelty in the form of the spurs or in the manner of affixing the same to the fence-wire by coiling. Under date of January 12, 1874, the application was for the third time rejected. On the fourteenth of March, 1874, Glidden filed an application for a patent for an improvement in wire-stretchers for fences. In the drawing attached, two wires are shown with spurs, made of short pieces of wire coiled around the fence-wires. In the specifications, it is stated:

"I do not claim to have originated the devices known as 'spurs' or 'prongs' on the wires, they having been used before, but confine myself to the means for holding the spurs at proper intervals on the wires, and to the means for obtaining a uniform tension of the wires, as claimed."

A patent on this application was granted under date May 12, 1874. On the twentieth of June, 1874, Glidden filed an amended specification in the application already rejected; and finally, on the twenty-fourth of November, 1874, the patent involved in this suit was issued. January 26, 1876, an application for a reissue of the patent of May 12, 1874, was filed, and granted under date of February 8, 187,6; the claim being for, "in combination with a fence-wire, a barb formed of a short piece of pointed wire, secured in place upon the fence-wire by coiling between its ends, forming two projecting points, substantially as specified." This reissue has been adjudged to be void, being an attempt to enlarge the claim of the patent on which it is based.

There can be but little question that if Glidden had not procured the issuance of patent No. 157,124, on the amended specifications filed June 20, 1874, there would be no escape from the conclusion that either he did not claim to have invented the coiled barb, or, if he had originated the same, that he had dedicated such invention to public use. In the combination filed December 9, 1873. a disclaimer of the invention of prongs is made; the claim being for the combination of prongs or spurs with the twisted wire. Taking the

disclaimer in connection with that found in the application for patent No. 150,683, and remembering that in these applications and drawings the mode of forming the

barb, by coiling the same around the fence-wires, is expressly shown, it would seem an unavoidable conclusion that Glidden had thus fully shown this mode of affixing the barbs, and had practically disclaimed being the inventor thereof, and had fully authorized the public to make use of this form of barb or spur. If, therefore, he had not renewed his application on June 20, 1874, by the amendment then made, the defense of abandonment would be clearly established. On part of the defendant, it is claimed that the filing of the amendment in June, 1874, and the subsequent issuance of the patent in suit, does not change the legal effect of the facts stated, and that the disclaimers found in the applications are just as cogent evidence of abandonment in the one case as in the other. On behalf of complainant, it is urged that the patent, when finally issued, reverts back, to the date of the original application, and, in effect, it speaks from that time. Under ordinary circumstances, this is doubtless true; but there are exceptions to the rule. The doubt in my mind, in the present case, arises from the uncertainty as to the real claim intended to be asserted by Glidden to the form of the barb or spur, as shown in the combination when he originally applied for a patent, in October, 1873. Assuming that the patent as finally issued, covers the form of the barb or spurs as shown in the Glidden combination, which is the effect of the adjudication by Judge BREWER in the *Grinnell Case*, and that Glidden sought in his original application to secure that as part of his combination, then it is not made clear that, by the disclaimers filed, he intended more than to negative the idea that he claimed to have originated the idea of putting Spurs or prongs upon plain fence-wire. The fact that he renewed his effort to obtain a patent upon his original application as amended, and finally succeeded therein, shows that he had not abandoned his claim to whatever of novelty might be found to exist in the combination covered by the patent issued; and, read in the light of his action in this particular, it must be held that the evidence fails to sustain the defense.

The patent being void, however, on the ground that it is only a combination of known elements, of which Glidden was not the first inventor, for the production of an old and known result and that it is therefore lacking in patentable novelty, the bill in this cause must be dismissed on its merits, at complainants' costs.