BROWN & VAN ARSDALE MANUF'G CO. *v.* STUDEBAKER BROS. MANUF'G CO.[1]

Circuit Court, N. D. Illinois. March 22, 1886.

1. PATENTS FOR INVENTIONS—AXLE SKEINS FOR VEHICLES.

Letters patent No. 216,615, of June 17, 1879, to N. L. Holmes, for an improvement in axle skeins for vehicles, must, in view of the prior state of the art, be limited strictly to its special device, which is the cutting of the blank in such shape as that, when formed up, it will make two frustrums of cones, the small end of the larger one springing from the large end of the smaller one, or the skein itself.

2. SAME.

The fifth and eighth claims of this patent cannot be sustained in view of the state of the art; and there was no infringement of the first and third claims in this case.

In Equity.

Munday, Evarts & Adcock, for complainant.

Coburn & Thacher, for defendant.

BLODGETT, J. The bill in this case seeks an injunction and accounting for the alleged infringement of patent No. 216,615, granted June 17, 1879, to N. L. Holmes, for "an improvement in axle skeins for vehicles." The patentee says in his specifications:

"My invention relates to the class of thimble skeins in which the thimble is formed up of sheet steel, and consists in a novel form of blank which furnishes both upper and lower wrist extension, continuous with the spindle portion, and which brings the seam or weld of the meeting edges in the spindle on one side of the latter instead of on the top as heretofore. It also consists in making the upper and lower extensions of such width and form as nearly or quite to envelope or embrace the axle back of the spindle; such

 complete wrist having lateral joints only, so that

the clip applied thereto, after the thimble has been forced upon the axle, will more easily bind the wrist to the axle. * * * The object of my invention is to give greater strength to the skein, to the attachment of the skein to the axle, and to the axle at the inner point of attachment, and also to obviate special objections to a seam or weld situated on the top of the spindle."

The patent contains nine claims, but only the first, third, fifth, and eighth are alleged to be infringed. These claims are as follows:

(1) The blank for a thimble skein, having wings to form upper and lower wrist extensions continuous with the spindle portion, substantially as described.

(3) A thimble skein formed from sheet metal, and having upper and lower axle extensions continuous with the spindle portion, substantially as and for the purposes set forth.

(5) A thimble skein formed of sheet metal, and having an axle extension or wrist adapted to nearly or quite embrace the axle back of the spindle, so as to give lateral as well as vertical support to the spindle, substantially as described.

(8) The thimble skein having an upper wrist extension sprung to rest on the rise of the axle back of the spindle, combined with the collar, c, embracing the skein at the point of increased rise, substantially as and for the purpose set forth.

"The novel form of blank" shown in this patent consists of one sheet of metal, so cut as that, when formed up into a pipe or hollow cone, it will show a complete pipe or cone, covering the end of the wooden axle, and of uniform pitch or slope back to about the point where the hurter band is to be shrunk on, or what the patentee calls the "band, *c*," from which backward the cone is enlarged for a few inches, and from thence a wing extends further back upon the under side of the axle. The enlargement back of the hurter band, however, is such that it will not cover or

embrace the shoulder of the axle unless this part of the axle is brought substantially to a cone shape.

Several defenses are interposed, but I only propose to consider that of non-infringement and the novelty of the patent. It may be said to be part of the common knowledge with reference to the construction of wagons, and of skeins for wagon axles, that where a wooden axle is used, upon the end of which a pipe or hollow skein is to be fixed, the axle is much enlarged back of the point reached by the inner end of the hub of the wheel, and if a skein is intended to cover substantially more than the portion of the axle subjected to wear within the box of the wheel, a considerable enlargement of the skein must be made back of the spindle portion. For many years prior to the date of the patent in question, a skein made of cast iron was in common use, which extended back of the hurter band, and embraced the shoulder, or part of the shoulder, of the axle, and was enlarged for that purpose to conform substantially to the shape of the axle shoulder. In November, 1869, one Schreyer obtained two patents for a Skein, to be formed from a blank of sheet steel or iron, a portion of which extended back from the hurter band along the under side of the 75 axle; but the upper part was not enlarged to embrace or cover the shoulder of the axle. A patent was granted in February, 1862, to R. S. Hall, for a sheet-metal skein, which was formed of two blanks bent so as to make an upper and lower section; the two being arranged so as to embrace the spindle of the axle, and extend back from the hurter band upon the top and under side of the axle; and in June, 1862, D. and J. Gray received a patent for a wrought-iron axle skein, which was to completely surround the spindle of the axle, and extend back beyond the hub, and to be held in place by a clip or clips, so as to re-enforce and strengthen the axle. A similar patent was granted to M. Ehrgott in March, 1869, and a patent to

J. C. Johnson in November, 1869, which shows a skein formed up so as to embrace the end of the axle, and a portion thereof to extend back from the hurter band upon the top and bottom, conforming to the shape of the shoulder of the axle. We see, therefore, that when this patentee entered the field quite a number of patents for axle skeins to be formed up from sheet metal had already been patented, and brought into public notice, and that some of them were not only clearly designed but adapted to be extended back of the hurter band, and embrace and cover some portions of the enlarged part of the axle back of the spindle, conforming, in some degree, to the shape of the axle shoulder.

The cast-iron axle skein exhibited in the proof, and shown to have been used long prior to the date of complainant's patent, shows an enlargement back of the hurter band, for the purpose of covering a portion of the shoulder of the axle; and, waiving for the time being the question of whether it is patentable to substitute wrought iron in the place of cast iron for the purposes of an axle skein, it is clear that the idea of enlarging the skein back of the hurter band so as to receive a portion of the shoulder of an axle was not new to this patentee. Indeed, the patented devices set out in the proof show several as adapted to cover a portion of the axle back of the hurter band larger than that which was intended to enter the hub. Gray shows this in a marked degree, and the proof shows that under the Johnson patent the skeins were made to substantially conform to the shape of the axle shoulder, back of the hurter band. In fact, the appliance ceases to be a skein back of the hurter band, and becomes only a support, more or less, to the axle; the skein being only that portion of the device which is intended to cover and protect the spindle of the axle. In view of the state of the art at the date of this patent, I have no doubt this patent must be limited strictly to

the special device, which is the cutting of the blank in such shape as that, when formed up, it will make two frustrums of cones; the small end of the larger one springing from the large end of the smaller one, or the skein itself.

The defendants make and use a skein which is formed by bending a sheet of metal around a mandril so as to cover, more or less, the shoulder of the axle with a wing, extending backwards quite a distance 76 upon the under side of the axle. This form of blank, when bent to the desired shape, does not make two sections of different cones, but makes a hollow spindle, the outside of which conforms to the shape of the hub box or pipe, and with an enlargement upon the top, back of the spindle, to cover and embrace the shoulder of the axle. The defendant's blank is not intended, and cannot be made, to form two cones, or sections of two cones, as does the Holmes blank, but simply forms a hollow pipe, the interior of which conforms substantially to the exterior of the axle which it is to cover. It is not a thimble skein having wings forming an upper and lower wrist extension continuous with the spindle portion, as called for by the first and third claims of the patent. It is obvious that the device of this patent is not adapted to cover or embrace an axle, the shoulder of which rises abruptly upon the top back of the hurter band, while the lower part extends back in substantially the same cone line as the spindle of the axle.

The fifth claim of the patent is for a thimble skein formed of sheet metal, having an extension or wrist adapted to nearly or quite embrace the axle back of the spindle; and the eighth claim is for a thimble skein having an upper wrist extension sprung to rest on the rise of the axle back of the spindle, etc. These claims, in view of the state of the art, I do not think can be sustained upon this patent. The fifth claim would cover any thimble skein, formed of sheet metal, having

an extension back of the hurter band, which embraced, or partly embraced, the axle back of the spindle; and this field was evidently more or less occupied by all the inventors shown in the proofs to have preceded Holmes; while the eighth claim is for a thimble skein having an upper wrist extension sprung to rest on the rise of the axle back of the spindle; that is to say, the form called for by this claim is not one which can be made by following the directions of this patent, but it would be any skein, the extension of which back of the spindle should be made to cover the shoulder; while the skein called for by the patent can only be a cone back of the spindle, and cannot cover the rise of the shoulder of the axle, unless it has a corresponding rise or enlargement upon the inner side. That is to say, there is no limitation upon the size of the rear cone which may be constructed under the Holmes patent, but there must be two cones: the cone which includes the spindle, and the extension back of the spindle which is an enlarged cone, calling for as much enlargement upon the under side as upon the upper side.

I am therefore of opinion that the skein made and used by the defendant is ssnot an infringement of that called for by the Holmes patent, because the enlargement back of the spindle in defendant's skein is only for the purpose of covering the top or shoulder of the axle, and the extension upon the under is no more than is shown in a large number of expired patents older than Holmes'. A decree may therefore be entered, finding that the defendant does not mange.

[1] Reported by Charles C. Linthicum, Esq., of the Chicago bar.