Case No. 13,002.

SMITH v. AMERICAN BRIDGE CO.

[3 BaL. & A. 565;[1] 8 Biss. 312.]

Circuit Court, N. D. Illinois. Oct., 1878.

PATENTS—DIES—CHORD-BAR HEADS—NOVELTY.

1. It being old to cut dies in the face of a trip-hammer or in the anvil upon which a trip hammer works, so as to forge iron into different shapes, there was no invention in making dies in such hammers or anvils of the proper shape to form chord-bar heads for iron bridges.
2. Letters patent No. 101,529, issued to Frederick J. Smith. April 5th, 1870, for an improvement in dies for making chord-bar heads, *held* void for want of novelty.

[This was a bill in equity by Mary Ann Smith against the American Bridge Company to restrain the infringement of letters patent No. 101,529, granted to Frederick J. Smith April 5, 1870.]

Banning & Banning, for complainant.

Lawrence, Campbell & Lawrence, for defendant.

BLODGETT, District Judge. This is a suit brought by the complainant to restrain the defendant from the use of a patent issued to Frederick J. Smith, April 5, 1870, for an improvement in dies for making chord bar heads.

The chord-bar head is a bar used in the construction of iron bridges. The dies are simply recesses or slots cut in the head of a trip-hammer, or the anvil upon which the trip-hammer works, and by the working of the hammer the bar heads are brought into the desired shape from the joint effect of the dies and hammer blows.

It is simply a hammer with the pattern cut in the face of the hammer and the anvil, so as to fashion the iron to be manipulated under it into the desired shape. The shape required for these chord bar heads is an oval, and it is contended or claimed by this patentee

that he has made an improvement in chord-bar heads by this process.

There is this peculiarity about the specifications that strikes me as noticeable. The patentee starts out by stating that he has made an improvement in dies for the manufacture of chord-bar heads. He then describes the method by which he prepares the iron for making chord-bar heads, saying that he commences by shingling scrap iron together, reheating it, and rolling it into a solid bar, and bringing it into the outline of the shape finally wanted. Then he places it under the hammer into which these dies have been cut and by blows of the hammer, when falling upon the anvil, he brings it into the proper form, and claims that he draws the fibre around the curved portion, so as to make the fibre surround the curved portion of the bar head, and thereby make it stronger. This is the claim which he puts in for making a better bar head, and one which will sustain more weight by many tons than those cut or chucked out in the ordinary way. The die, however, is all that he claims as the patented device, and the question naturally arises: How much of the patentee's improvement results from the better iron which he uses by shingling scrap iron together, and thereby obtaining a better material with which to make his bar heads, and how much is due to the process by which he manipulates the iron in his dies after he has shingled the bars together?

Every person familiar with the making of iron knows that scrap iron, when shingled and reheated and welded together, makes the toughest iron that is known to the trade, and that it is the process by which the best iron is prepared for the extraordinary services to which it is subjected for many purposes—such, for instance, as railroad car axles, where the very best quality of iron is required. But the feature of this invention which struck me when the ease was first presented was, that these dies are old; they have

been in use many years, as the proof in this case shows—many years before this man obtained his patent, or claims that he made his invention—for as the proof in this case shows, for twenty years before this man appeared upon the field as an inventor of this device, dies similar to this, except in shape, were used in Colt's armory at Hartford, Conn., for the purpose of shaping the butts of pistols under the trip-hammer, the die being partly in the anvil and partly in the hammer which fell upon the anvil. So, too, the hammers for pistols were struck under a die in a similar manner; and for many years prior to this inventor's entering the field, dies were used in a manufactory at Cleveland, for striking into shape irons, in form similar to this, used in making drawbar heads for railroad cars.

Now, after the art of cutting dies in the face of the hammer and in the face of the anvil, so that articles could be shaped to a given pattern under the trip-hammer, had been so far developed that an ordinary mechanic could, with dies in an anvil and hammer, or in either the anvil or hammer, produce shapes like those draw-bar heads, what possible invention was there in cutting dies of another pattern in your anvil or hammer so as to shape these chord-bar heads? It was simply changing the form of the die.

A die which would work, or a hammer and anvil which would work a piece of iron into a draw-bar head, would work one into a chord-bar head when you simply changed the form of the die. It seems to me that it is preposterous to hold that a man is entitled to a patent for a mere device of this kind. It is not an invention of a new die, to change the form of a die so as to make a new shaped article under it. The time may come when it will be desirable to make a chord-bar head of 421 different shape from the one which this die makes, and if the principle contended for by this patentee is sound, we should have a new patent for every conceivable new form of die, not only in chord-

bar heads, but for every other form into which iron can be worked by the aid of dies. There is certainly nothing new in this device; there is no novelty in the mere change of form of the die, so as to change the form of that which is manipulated under the die.

The bill will be dismissed.

[1] {Reported by Hubert A. Banning, Esq., and Henry Arden, Esq., and here reprinted by permission.}