in the character of work done Golding is at all points an improvement on Hoe. It is not surprising that the former has superseded the latter and occupies a position of unchallenged supremacy in the art.

It is not pretended that any of the patents introduced by the defendant anticipates the complainant's invention and it is thought that they do not negative invention when combined. What printers wanted was a small, strong, cheap, durable and powerful machine that would cut both rules and leads, making a clean, straight, accurate cut. This they got in "The Little Giant." No other machine possessed these features, no prior patent describes how such a machine can be made. Nothing in the prior art discloses a knife capable of making a shearing cut and a straight cut at one stroke with a gauge plate arranged in plain sight of the operator so that the result is a clean, straight edge on rule and lead. The claims above quoted are aptly worded to give the inventor the fruits of his invention. They do nothing more and both are necessary to accomplish this result.

The patent having expired pendente lite the complainant is entitled to a decree for an accounting.

AMERICAN TUBING & WEBBING CO. v. NICHOLLS.

(Circuit Court, S. D. New York. December 19, 1895.)

PATENTS—PRIOR USE—FLEXIBLE GAS-TUBE ATTACHMENTS.

The Caldwell patent, No. 480,247, for improvements in the mode of attaching tips to flexible tubing for gas, *held* void because of prior use.

Final Hearing in Equity.

This action is for infringement, founded upon letters patent, No. 480,247, granted August 9, 1892, to Alfred Caldwell for improvements in the mode of attaching tips to flexible tubing for gas. The patent is owned by the complainant. The specification says:

"The flexible tubing now in use (February, 1892,) is attached to the tip or socket referred to by placing the small end of the same within the end of the tubing and then winding with thread or fine wire to retain the connection of the two parts and prevent the escape of the gas. This method of attachment requires much time and care and cannot always be relied upon to make a perfectly tight joint. The object of my invention is to make a more complete and perfect union between the tubing and the tip or socket by which it is attached to the stove, drop-light, or source of supply and at the same time permit the parts to be more quickly and easily united. My invention is more particularly designed to be used in connection with a flexible gas-tubing having an interior spiral wire supporting the same, although it may be used with good effect in tubing in the construction of which such spiral wire is not employed."

The specification further states, in substance, that the joint is made by placing the cap over the end of the flexible tube. The hollow shank is then screwed in. The interior of the tube is spirally wound with wire which engages with the screw threads on the shank and thus the parts become so firmly united that they cannot be separated. The relative diameters of the screw-shank, the cap and the tube are such that the introduction of the shank into the tube expands the tube within the cap to an extent sufficient to form a perfectly tight joint and prevent the escape of gas. The connection is made in a moment and no special care is required to secure a tight

joint. Tubing which is not provided with an interior spiral wire may be used with fairly good results although the attachment of the parts will not be as perfect as when the tubing is provided with the interior wire.

The claims are as follows:

"(1) The combination, with a flexible tube having a coiled wire lining upon its interior, of a cap upon the end of the tube, the outer end of which is contracted and provided with a short cylindrical portion of a diameter slightly greater than the interior diameter of the lining of the tube, substantially as set forth.

"(2) The combination, with a tip or socket having a screw-threaded shank, of a tube having a coiled-wire lining upon its interior and a cap upon its exterior, the outer end of said cap being reduced and provided with a short cylindrical portion of a diameter slightly greater than the interior diameter of the lining and adapted to engage with the end of the wire lining at one end and with a shoulder upon the end of the tip at the other end, the exterior diameter of the shank of the tip being slightly greater than the interior diameter of the lining, substantially as set forth."

The defenses are lack of invention and anticipation by various patents and by the prior use of the defendant Mark M. Nicholls.

Infringement is proved beyond a doubt.

H. Albertus West and Wilmarth H. Thurston, for complainant.

Arthur v. Briesen and Harry M. Turk, for defendant.

COXE, District Judge (after stating the facts as above). The principal feature of the invention consists in the substitution of the metallic cap for the old method of winding the end of the tubing with fine wire and twine. If this had been done by others prior to 1892 nothing remained to be patented by Caldwell.

The defendant's gas stove exhibit (No. 12) contains all the valuable features of the claims. It differs from the exhibits embodying the patented device, as it is understood by the complainant, in minor and unimportant details only. The question, therefore, and the crucial question, is whether the defendant, Mark M. Nicholls, made the patented structure prior to February 24, 1892? It is unnecessary to discuss the details of the testimony further than to say that Nicholls swears that he made and sold tubing having the patented improvement eight years and more before the date of the application for the Caldwell patent and continued to do so for several years. A specimen which had been in his possession and in use in his family since 1887 was produced. The testimony bearing on this prior use was approached with the disposition to reject it if it contained any evidence of having been manufactured, but after having read it with careful scrutiny the court is compelled to the conclusion that it is worthy of belief. The reasons which lead to this conclusion are, briefly, as follows:

First: Nicholls is corroborated by his wife, Shaw, Flanders and Hindelang. Their evidence is uncontradicted except, perhaps, as to a few unimportant collateral issues.

Second: In order to find with the complainant upon this issue it is necessary to convict, at least, three of these witnesses of perjury and conspiracy. There is nothing to warrant such a finding. In order to reach it the court must arbitrarily discard the testimony of five unimpeached witnesses and substitute mere conjecture therefor. In other words, the court must reject facts based upon proof for suspicions based upon the imagination of counsel.

Third: There is nothing in the past history of Nicholls and his wife to indicate that they would be guilty of fabricating a fictitious exhibit and supporting it by wholesale perjury. So far as their history is disclosed in this record they were respectable, hard-working and honest people. That in middle life, with their children growing up around them, they should suddenly develop a proficiency in crime, which would be rare even among professional law-breakers, is, surely, not to be presumed.

Fourth: Shaw, Flanders and Hindelang are disinterested witnesses. What motive they could have in swearing to the gas stove construction and similar tubing, if, in fact, no such structures existed, it is impossible to conceive.

Fifth: This is not the case of a single witness swearing to a structure which he has not seen for a quarter of a century. All of the important events occurred less than nine years, and some less than four years prior to the taking of the testimony. Neither is it a case of unaided memory. The structure itself is produced which for eight years had been in the possession of the defendant and in use at frequent intervals during that period by members of his family. As to the other witnesses their recollection is refreshed and aided by a number of corroborating facts and circumstances about which there is no question.

Sixth: There is nothing inherently improbable in the defendant's proof. Nicholls was a manufacturer of tubing during all the time in question. He was a man of more than ordinary capacity. He was, himself, an inventor and, in 1883, received a patent for improvements in flexible tubing. The "Little Giant" gas stove is a verity; so is the "Scovil tip." The former was purchased by Mrs. Nicholls of Shaw at the American Institute Fair in 1887 or 1888. Scovil tips were, at the same time, sold in large quantities by the E. P. Gleason Manufacturing Company. There is nothing extraordinary in the fact that an ingenious manufacturer of tubing, with a cap ready at his hand, should place it on the end of the tube to conceal and strengthen the joint. It was a natural thing to do. Nicholls says he made a large quantity of tubing thus constructed and sold it to a number of well-known dealers, whose names he gives. No one contradicts this testimony.

Seventh: The complainant's counsel lay stress upon the fact that this prior use was not pleaded in the answer as originally filed, but appeared afterwards in the form of an amendment. It is argued that this is a suspicious circumstance. It certainly is. But its force is considerably broken by the testimony of the patentee who says that he had a conversation with Nicholls prior to the suit and about six months after the patent was granted and that Nicholls then told him that he had made the patented tip several years before the date of the patent. This testimony tends to sustain the defendant's theory that the defense was omitted through the inadvertence of his counsel, the lawyer first employed by him not being a specialist in patent law.

Eighth: The other reasons advanced by the complainant for disregarding defendant's testimony have been fully considered. Some

of these criticisms are cogent and ingenious and have been worked out with great care and diligence. They are not sufficient, however, to outweigh the reasons here given for accepting the testimony. Of course discrepancies and contradictions exist. They always do. No more of this appears than is usual where five witnesses testify from different points of view regarding events which occurred several years before. Taken as a whole the testimony carries the conviction that it is true. To reject it wholly would be doing a number of persons, apparently honest, a gross injustice. When the court takes the responsibility of branding as unworthy of belief the uncontradicted testimony of five reputable witnesses it should have some reason to advance for a course so unprecedented. No adequate reason is suggested.

It follows that the bill must be dismissed.

ILLINOIS STEEL CO. v. KILMER MANUF'G CO. et al.

(Circuit Court, S. D. New York. December 9, 1895.)

PATENTS—CONSTRUCTION OF CLAIMS—INFRINGEMENT—ROLLING-MILL PLANTS.

The Garrett patent, No. 289,524, for improvements in rolling-mill plants, designed to produce a plant for working blooms and billets and reducing them to wires and rods at a single heat, and reeling them as delivered from the rolls, is strictly confined, by the prior state of the art and by the express limitations of the specification, to a direct feed from one pass of the billet train into a pair of rolls, and a direct line of feed from said pair of rolls to the rod train, both being in a direct line and in the same direction of feed, and the patent is not infringed by a mill built according to the Kilmer patent, No. 440,863.

This was a suit in equity by the Illinois Steel Company against the Kilmer Manufacturing Company and others for alleged infringement of certain patents relating to rolling mills.

John R. Bennett, for complainant.

Edward Wetmore and W. H. Singleton, for defendant.

TOWNSEND, District Judge. This is a final hearing on a bill alleging infringement of patents No. 289,524, dated December 4, 1883, and No. 319,694, dated June 9, 1885, granted to W. Garrett, assignor to complainant, for improvements in rolling-mill plants. The object of the invention of the first patent "is to produce an improved plant for working blooms and billets and reducing them to wires or rods at a single heat, and reeling them as delivered from the rolls." The patentee admits that what he proposed to do had been previously done, but "not with practical and commercial success."

The claims as to which infringement is alleged are as follows:

"(1) A rolling-mill plant for rolling wire rods directly from blooms, having in combination a billet train, B, a rod train, C, C', and an intermediate train, D, the rolls of which latter are arranged in, or approximately in, line with the last pair of delivery rolls of the billet train and the first pair or receiving rolls of the rod train, substantially as set forth.

"(2) The three trains B, D, and C, C', relatively arranged, substantially as set forth, whereby the space is left for the working of the bloom back and forth through the rolls of the train, B, except the last one, and from this