The customary reference has been made to such cases as Crane $\mathbf{r}$. Price, Webst. Pat. Cas. 393, 409; Electric Co. v. La Rue, 139 U. N. 601, 11 Sup. Ct. 670; and Potts \& Co. v. Creager, 155 U. S. 597, 15 Sup. Ct. 194,-but the distinction is clear. In Crane v. Price the discovery was of the susceptibility of anthracite to the action of the hot blast. 1 Rob. Pat. § 266, note. Martin discovered no new quality in internal gear wheels, and applied them to no use which can be properly called new. In Electric Co. v. La Rue the invention related to telegraphic keys, and consisted "in substituting for the trunnions or pivots upon which the lever vibrates a torsional spring or strip of metal"; the spring not only taking the place of the pivots or trunnions, but, when used in connection with certain adjusting screws, taking the place of the ordinary retractile spring. The court, after stating that there was nothing in the exhibits in the case to show "the use of a torsional spring in a telegraphic instrument," and that the invention "did not seem to be one of great importance," said: "We think the adaptation of this somewhat unfamiliar spring to this new use, and its consequent simplification of mechanism, justly entitles the patentee to the rights of an inventor." There was there not simply the substitution of one known form of spring for another. The retractile spring was displaced by the torsional spring, and, if there had been nothing more, it would have been essentially like the putting of the internal gear wheel in the place of the external; but the replacement of a fixed and inflexible pivot or trunnion with a torsional spring was an essentially different achievement, rising, as the supreme court considered, to the dignity of invention. But that conclusion, it is to be observed, was reached on the grounds that the torsional spring was somewhat unfamiliar, had never before been employed in a telegraphic instrument, and, as introduced, subserved a new use. Here, the contrary is true in every particular. The internal gearing, its effect, and its relative advantages over the other form had been familiar. It had been in use in windmills side by side with the external wheel, and if, as employed in the Martin combination, it served a use which, in any sense, was new, it was, in the language of the opinion in Potts \& Co. v. Creager, "so nearly analogous to the former one that the applicability of the device to its new use would occur to a person of ordinary mechanical skill."

It is not perceived that further proofs are possible of a character to change the result. The decree or order below is therefore reversed, with directions to dismiss the bill for want of equity.

HILL v. OURTIS.<br>SAME v. HORNTHAL et al.<br>'Clrcuit Court, N. D. Illiniois. June 27, 1898.)

No. 480.
Patents for Inventions-Infringement-Metallic Cashets.
Letters patent No. 482,557, issued September 13, 1892, for an Improvement in metal caskets, consisting of a metallic plate top having slitted ends and continuing sides, provided with strengthening ribs, is not infringed by a device having no such ribs except such as run around the slitted end.

These were two suits by Francis H. Hill, one against James C. Curtis, and the other against Louis Hornthal and H. J. Millhauser, to enjoin an alleged infringement of letters patent No. 482,557, issued September 13, 1892, to complainant, for a metallic casket. The novelty claimed by the patentee was in the top of the casket, which is thus described in the specifications:

The top of the casket is cut out of sheet metal in substantially the form shown in Fig. 7. Both ends of the blank are alike, although one end is shown cut away in Fig. 7. The blank is then stamped up into the form shown in Figs. 1, 8, and 9, the top being flat, with a raised groove, D, extending around the flat portion, E , to strengthen it. The triangular slits, F , in the ends of the top, are closed when the ends are bent into the form shown in Figs. 1, 8 , and 9 , bringing the edges of the pieces $G$ into contact, and they are brazed or soldered together, each joint making a rib, which beautifies and strengthens the oval ends of the cover. The lower edges of these pieces $G$ are soldered to a piece H, which extends around the end of the top of the casket, extending outward, and is secured to the upper edge of the metallic rim or band, 1, being grooved over the upper edge thereof, as clearly shown in Fig. 5. There is also a brace plate, J, rigidly secured by solder or otherwise to the lower edge of the rim or band, $I$, and extending to the lower edges of the pieces $G$, being soldered rigidly thereto. The side pieces, $K$, of the metallic top, are bent around the rim or band, I, forming the ledge and shoulders made by the pieces A at the ends, and also the braces, J, as clearly shown in Fig. 9 of the drawings. This construction at the sides of the casket can readily be made from the fact that the sides are straight. The sides, however, are bent in an oval form from the raised grooves, D, downward, and they receive at intervals raised ribs, L, L, to correspond with the ribs at the ends of the casket. These ribs, L, are stamped or swaged up in the metal plate. I is a vertical metallic rim or band extending entirely around the edge of the top of the casket, and is held firmly in position by the means above described. The top of the casket is stiffened, so as to more securely hold this vertical band rigidly in position, by means of the ribs in the beveled ends and sides thereof. The lower edge of this rim, when the top of the casket is in position, rests upon the rubber gasket, $C$, secured to the body of the casket.


Fig.1.



Coburn \& Strong, for complainant.
Moran, Kraus \& Mayer and Offield, Towle \& Linthicum, for defend• ant.

GROSSCUP, District Judge. The bill is to restrain infringement of letters patent No. 482,557, issued September 13, 1892, for a new and useful improvement in metallic caskets. The only claim of the patent upon which relief is asked is claim 2, which is as follows:
"In a metallic casket, the metallic plate-top having slitted ends and continuing sides, provided with strengthening ribs, and connected at their edges to a vertical rim, I, and the vertical rim, I, attached to the top and braced vertically, substantially as specified."

The defendants' device has but one slitted end, has no continuing sides, and has no strengthening ribs, except such as run around the slitted end,-a very small portion of the entire top. In other respects the defendants' derice seems to be almost an exact copy of the complainant's patent. I seriously doubt whether the omission of one slitted end, and the division of the metal in the sides, so as to make them noncontinuing, would take the defendants' device out of infringe-
ment upon the complainant's patent; but I have no doubt that the omission of strengthening ribs renders the defendants' device noninfringing. The reference to the descriptive portion of the patent and the drawings shows that the sides receive, at intervals, raised ribs to correspond with the ribs at the end of the casket; that these ribs, distributed at intervals, perform an important function, namely, to stiffen the top of the casket so as to more securely hold the vertical band, I, rigidly in position. Now, the omission of this feature of the defendants' casket is a departure in an important particular-at least, in a particular regarded as important by the patentee-from the combination of elements constituting the claim. The defendants' casket, in fact, is not made up of all of the elements of the complainant's claim, nor do they employ mechanical equivalents to supply the omission. The bill must therefore be dismissed for noninfringement.

## UNITED States mitis Co. v. Carnegie steel co.

(Circuit Court, W. D. Pennsylvania. July 30, 1898.)

1. Patents-Processes-Mistaken Theory Embodied in Specification. If the patentee of a process fully describes the invention itself and its practical results, and gives sufficient directions for putting it into practical use, the validity of the patent is not affected by the fact that he has also expressed, in the specification, an erroneous scientific theory as to the action of one of the substances employed in the process.
2. Same--Interpretation-Infringement.

A patent for an improvement in the process "of manufacturing castings from wrought iron and steel," by adding a slight amount of aluminium to the molten metal, stated in the specifications that "the iron or steel is melted in crucibles or metal-smelting furnaces of any suitable description." Held, that this did not confine the patent to a remelting process, starting with the wrought iron or steel in a solid state, but that it applied as well to molten metal taken direct from the smelting furnace and used in casting.
8. Same.

In a claim for a described process "of manufacturing castings" from wrought iron or steel by adding a small quantity of aluminium to the molten metal, held, that "castings" was not limited to articles to which ultimate form is given in the mold, but included also steel ingots, which are subject to further treatment, involving change of form.
4. Same.

In a patent for a process of manufacturing iron or steel castings, the claim stated the process as consisting "in the admixture with the molten fron or steel of aluminium in about the proportions specified, and then casting." The specification stated that the aluminium should be added "preferably just before the pouring is commenced." Held, that the claim was infringed by putting the aluminium in the mold itself after it was about one-third full, and then pouring in the rest of the metal.
5. Same.

The patent specified the proportion of aluminium to be added as preferably from $1 / 5$ to $1 / 10$ of 1 per cent, and never exceeding 1 per cent., and further stated that "even a much smaller percentage has an ap" preciable influence." Held, that the patent was infringed by using $55 / 10000$ of 1 per cent., where the results designed by the patent were thereby se. cured.

