Legal Notes.

THE BRISLIN-CARNEGIE SUIT—AN IMPORTANT PATENT DECISION.—John Brislin and Antoine Vinnac brought an action against the Carnegie Company in equity (118 Fed. Rep. 579) charging infringement of patent 345,393, granted to them for a feeding mechanism for rolling-mills. The bill also charged infringement of a patent granted to Patrick F. Hanley and Francis N. Richey, for a feed-table for rolling-mills, which patent was afterward assigned to Brislin and Vinnac. The usual defense of invalidity of the patents in suit and non-infringement was set up.

The decision is important, in that it subjects to patent monopoly the mechanical rolling of steel beams used in modern building. Inasmuch as it was contended that these patents were void, as not involving patentable novelty, the Court deemed it proper to study the advance made in mechanical iron-rolling, as contrasted with manual rolling, by those who preceded Brislin and Vinnac. In a general way, the art of rolling any size of iron consists in passing high-heated billets or blooms through differently-gaged roll-passes. This reduces thickness, but increases length or width. In manual rolling, men handle the metal with tongs, hooks, levers, and various appliances adapted to feed it on one side of the rolls, and catch and return it on the other. Where a stand of two rolls, technically styled "two-high rolls," is used, the return is made over the upper roll, while in a three-high stand a roll-pass both ways is made. Some kinds of iron are finished at a single stand of rolls; others transferred to an adjoining stand, which further reduces thickness and increases area. It will be apparent that, the bulkier the billets, with consequent lengthened product, the time, labor, and difficulty incident to manual handling increase. Moreover, as the process is prolonged, heat radiation either necessitates reheating of the finished metal; or, if rolling continues with the cooler and less pliable metal, risk of roll-breaking is greatly increased. Accordingly the trend of advance has been from manual to mechanical rolling, since thereby great masses can be easily and rapidly handled, and manual labor restricted to the mere operation of the machinery used. Moreover, it must be borne in mind that in heavy rolling a change to machinery is more than mere economic gain of a labor-saving appliance. The heat radiated from these huge, fervid masses, to say nothing of the bulk to be handled in the face of this heat, created limitations to human endurance, which machinery alone could overcome. That a significant advance in such rolling art has been made is apparent in a modern beam-mill. In measuring the real advance made by successive inventors in solving the problem of continuous mechanical rolling—and by that is meant a process where the finished product is wholly mechanically rolled—two facts should be borne in mind: First, the great economic gains incident to even a partly mechanical process were clearly recognized; and second, the key to the solution of the problem of continuous mechanical rolling, to wit, a pivoted table, was known to inventors, but unused, for upward of forty years.

Some of the advantages of mechanical rolling are forcibly stated at an early day by Sauvage in his patent of 1857; and a recognition of the advance incident thereto will be found in the patents of many subsequent inventors. With a well-recognized object in view, and with the pivoted table (which eventually solved the problem) in their possession, the work of subsequent inventors must be instructive in solving the question, whether its ultimate solution was a mere clever use of well-known means already at hand, or involved inventive genius. Turning to an examination of successive patents, the first is that granted to George Fritz, in which is found a horizontal table on each side of a three-high mill. These tables are adapted to be raised to the upper roll-passes and dropped to the lower ones by individual hydraulic cylinders. Reversible propelled feed-rollers constitute the beds of these tables, which rollers are adapted on the one side of the rolls to feed the iron forward to the pass, and on the other to carry it away as it emerged, and both are adapted to reverse the operation as the metal is returned. The other details of the patent need not here be referred to. In summarizing the pertinent advance made by Fritz toward mechanical rolling, it is to be noted that the vertical lift capacity of his device fitted it for use at a three-high mill, and its feed-rollers positively actuated when the table was at the upper as well as the lower pass, enabled it to do complete mechanical feeding and rolling at a single stand of three-high rolls. The substance of his contribution to the art was a lifting table and positively-actuated feed rollers. It is also clear, even at this early stage of the art's development, that Fritz recognized what is also recognized by several succeeding inventors, the special mode of applying power to his rolling agencies—in his case the lifting table and the propelled feed-rollers—was regarded as a minor matter, a question of mechanical methods.

The court did not overlook the fact that Fritz provided means for laterally moving the metal so as to feed it to different passes on the lower level. But this mechanism was no part of his table, nor could the table itself be laterally moved. Under his lifting table was an auxiliary carriage, adapted to be laterally moved parallel to the rolls by a hydraulic cylinder. On this carriage were horns, which, as the table was lowered, caught the metal lying on the table, turned it over, and pushed it opposite the desired pass. This double mechanism tends to emphasize, rather than minimize, the originality of a single device wherein the lateral shifting was of the table itself, and where the extent of the shift was from one stand of rolls to another.

The continuous use of the Fritz device suggested no change in the hand-rolling beside it, and led neither to its adaptation to more than one stand of rolls nor to the broad conception of a continuous mechanical process, the outcome of which was a wholly mechanically-rolled product. It must, therefore, be obvious that, if fourteen years later such device came into use, presumably it was not a mere mechanical adaptation in the Fritz device, it was not likely to lie dormant through years of inventive effort to reach such results.

The next step in time appears in the patent of Frederick J. Slade, of Trenton, N. J., No. 222,845, granted December 23, 1879. The device therein shown was confessedly not an original device, but simply purported to be an improvement on a patent to Charles Hewitt—No. 24,304, of June 7, 1859. Compared with Fritz's, Slade's device shows no advance, and in one important element it embodies a noticeable backward step. Like Fritz's, it was only adapted to operate at a single stand of rolls, and it was, therefore, no advance over the old device. But in that it lacked the Fritz positively-actuated feed-rollers it was a distinct step backward.

The next step is the patent of Christopher Lewis, of Columbus, Ohio—No. 276,665, of September 27, 1881. The substantial advance shown by Lewis was not only in making one carriage serve two stands of rolls, but in his use of a number of carriages he carried mechanical rolling through the entire process, thus securing what he styles a "continuous rolling mill." In Lewis we thus find the idea of the process of complete mechanical rolling continuous from the ingot to the finished product. His advance, however, by its lines of construction (and this as distinguished from the mere mechanical application of power) was limited to two-high rolls, and it necessitated the use of a considerable number of carriages on each side of the rolls. It is certain his device left no impress on the art. It should be noted that Lewis' entire mechanism was mounted on stationary tracks, and was a complete abandonment of the vertical movable table principle of Fritz and Slade.

The next stage of the art is shown in the patent of Samuel T. Wellman, of Cleveland, Ohio—No. 277,860, May 15, 1883. Here is found a return to the pivoted table. On either side of the stand of three-high rolls Wellman employs a table pivotally supported at its outer end on a stationary foundation. This construction, of course, leaves the inner end free to be raised or lowered to either roll-pass. In the bed of the table are rollers adapted to be positively revolved and reversed when the inner end of the table was at either angle. The inner ends of the table are raised and lowered simultaneously by a hydraulic cylinder placed on one side of the rolls. The feed-rollers are actuated by a single reversible steam engine. Wellman adopts the general prior teaching of the art, viz., the indifference of the mere modes of power application to his rolling agents.

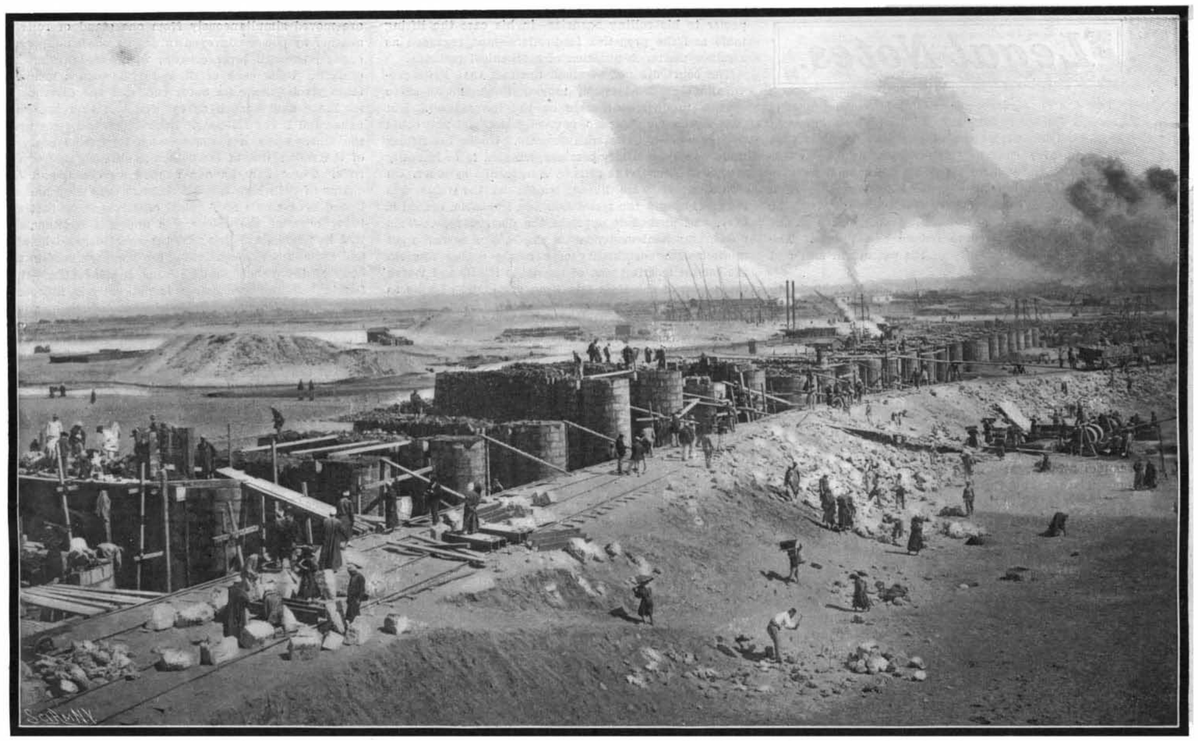
So far as indicated by the patents in evidence, no further step is shown in heavy mechanical rolling until the Brislin and Vinnac patent in suit. The Fritz tables were used at the roughing stand of rolls for some time at Homestead, as they were elsewhere; but there is no proof that any one thought of rearranging or reconstructing them in combination with the elements shown by Lewis, Slade, or Wellman, so as to broaden the art of mechanical rolling. The Wellman type of mill was also widely used as a one-stand device, accomplishing as it did partly mechanical rolling. But partly manual rolling continued as to the remainder of the process besides these partly mechanical devices.

Brislin and Vinnac were both ironworkers, and were acquainted with the difficulties incident to this work. Brislin had given up millwork, but Vinnac continued as roller. A model was made which was placed in the hands of a patent solicitor to prepare specifications. The application was rejected on formal grounds before it was considered at all on its merits.

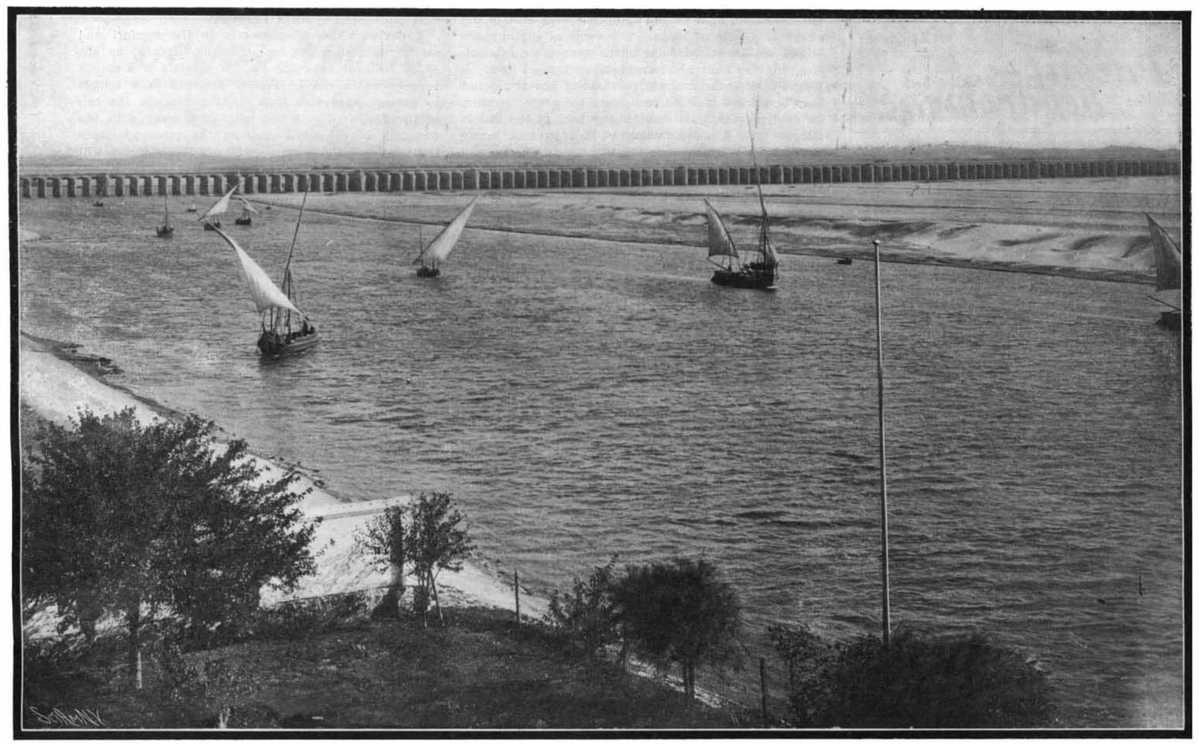
In the device shown are two carriages, one at each side of the rolls, and adapted to move on stationary tracks parallel with the roll axis. Those carriages are moved simultaneously from one stand of rolls to another by power conveyed through a shaft adapted to engage, through lever control, with the lower string of rolls. Upon each of these carriages is a mounted table pivoted near its outer end, and the distance to its inner end is such as to permit it to reach both upper and lower roll-pass. Such inner end rests upon the slides along a bar suspended by chains in front of the rolls. One of these bars is on each side of the rolls. These bars have a supporting chain, and the chains of both bars connect and are drawn up and released by a single mechanical contrivance, so that the inner ends of the tables rise and fall together. It will be noted—and this fact the court deemed helpful and explanatory in construing the language used in the body of the patent in describing the invention—that the table-lifting mechanism is not entirely independent of the rolls as a whole, but has no connection whatever with individual parts of the rolls, to wit, the carriage, with the middle string, which propels the feed rollers, or with the idling upper string. In other words, the table-lifting mechanism—and this is a significant fact, and one to be fully appreciated—is entirely independent of roll connection.

In the Brislin-Vinnac device is found for the first time in heavy rolling the combination of a pivoted table, adapted to feed metal at both the upper and lower passes of more than one stand of such rolls. No one prior to Brislin and Vinnac thought of, much less embodied in form, the coupling of a pivoted table and a movable carriage. Conceding that all the elements of Brislin and Vinnac were in themselves old, yet, in the opinion of the court, it must be conceded that they were the first to take the separate, individual elements of advance in the rolling art, and so combine them as to accomplish continuous, complete mechanical heavy rolling, and to make possible a new product, to wit, a machine-rolled heavy beam. The separate steps of Fritz, of Slade, of Lewis, and Wellman, securing lateral movement, vertical movement, and tilting movements, were each deemed worthy of patent protection and reward. Why then, asks the court, should the steps of Brislin and Vinnac, which carried this advance to the culmination in combining lateral and vertical in such a way that both movements could be used in each form of roll to which prior inventors had succeeded in applying but one of such movements, be deemed not only worthy of patent protection, but of such favorable regard as the broad and important field it pertained to would warrant? A device which transfers from the field of human toil to mechanical work the handling of huge masses of iron heated to a point almost prohibitive to human handling is a beneficent factor that is not to be measured by the economies of a mere labor-saving machine. The significance of this the Brislin-Vinnac combination cannot be minimized. It was not the mere placing together of two elements, each of which in the new relation continued to travel in its old orbit, and accomplish the same result it had done singly. The union of the two left neither the same as before. The lateral movement of the carriage widened the sphere of the table so that it served a plurality of roll-stands. The vertical motion of the pivoted table doubled the sphere of the carriage, in that, while remaining on stationary tracks, it could reach a roll-pass on a level other than its own. The power to move existed in one factor. The power to reach existed in the other. The union of the two gave to the moving factor the power to reach; gave to the reaching factor the power to move. In this flexible roller we have a new mechanical factor; in its work we have a new result, viz., a machine rolled product. Thus the two elements of a lateral shift carriage and a pivoted table, elements old in themselves, known and used for years, when united accomplished a novel result in a novel way. A decree was entered for the plaintiff.

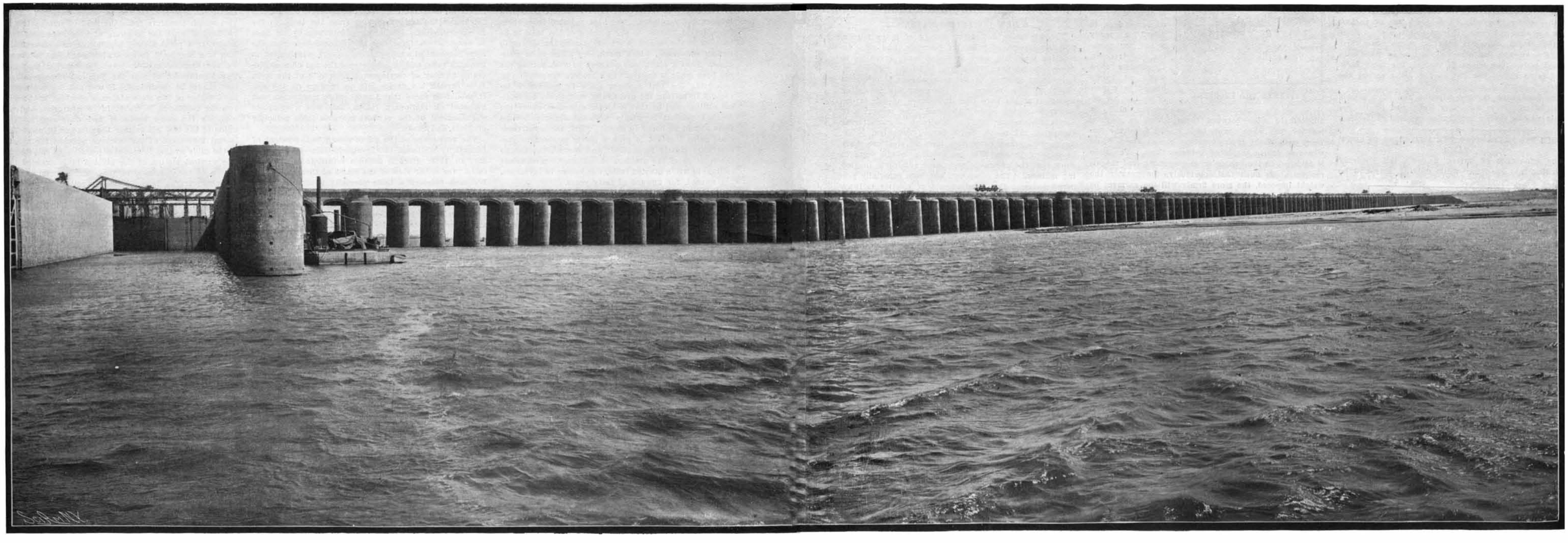
UNFAIR COMPETITION CASE.—The case of Samuel Brothers & Company against the Hostetter Company (118 Fed. Rep. 257) brings out just what is meant by unfair competition in trade. The appellee brought suit against the appellant, charging him with selling for the appellee's preparation, an article of bitters resembling that of the appellee. The evidence upon which the Circuit Court sustained the charge of unfair dealing against the appellant, was the testimony of two witnesses who were in the employment of the appellee. These two witnesses testified that they went to the wholesale liquor store of the appellant, where the spurious bitters were sold by a clerk in bulk. The witnesses stated that, in addition to the bitters, they were furnished with empty bottles bearing the appellee's label and trade-mark, to be used in retailing the bitters to consumers. Such evidence, the Court of Appeals held, was sufficient to support the Circuit Court's finding that the defendant was engaged in unfair competition, although there was no proof that any customer had been actually deceived. The case may be considered in many respects typical of the protection afforded by courts of equity against unfair competition,



Method of Constructing the Barrage. The Temporary Dams for Excluding the Nile Waters are Seen on Either Side of the Structure.



General View of the Nile as Diverted Into Its New Channel, with Barrage Sluices Open.



This work should not be mistaken for the Great Dam at Aswan, formall opened by the Duke of Connaught on December 10th of last year.

PANORAMIC VIEW OF THE GREAT ASYUT BARRAGE ACROSS THE NILE, OVER HALF A MILE IN LENGTH, SHOWING THE NAVIGATION LOCKS TO THE LEFT.