Legal Notes.

THE ROTARY DISK PLOW IN COURT.—Rotary disk plows, although they have been the subject of invention for twenty-five years or longer, have only quite recently come into extensive use. They have come in the wake of disk harrows as cultivators of the soil. These plows, as they have been usually constructed, consisted of a frame, generally carried on wheels, in which was located a large concave disk, one or more, of iron or steel, having an edge on its periphery, and revolving on an axle at its center. The vertical plane of the edge of the disk was, in the usual form, perpendicular to the frame and to the soil, but the horizontal plane was turned at an angle to the line of draft, so that when the disk was let down and the machine was moved forward the disk would enter the soil at the same angle to the line movement, and, revolving, would turn out on its concave side a furrow of the earth scraped out by the edge of the disk, the area of earth moved corresponding with the angle at which the disk was set and the depth to which it entered the soil. Provision was made for raising and lowering the disk in the frame or with the frame, and for counteracting the sidewise pressure produced by the movement of the earth on the concave side of the disk, as by the use of sharp-edged wheels entering the soil and running parallel to the line of draft, or by staggered wheels inclining inwardly at the bottom. When more than one of such disks were used they were sometimes set one a little forward of another, and on parallel lines, so as to operate on strips of the soil after the fashion of what are known as gang plows.

Certain objections had been found in such former constructions of these plows which tended to defeat their usefulness and prevented their coming into general use, notably these two: The disk, running in the ground with a perpendicular plane, simply scraped out the soil instead of plowing it, and left the soil in the bottom of the furrow compacted by the scraping; and, secondly, that in order to compel the disk to enter the soil properly it was necessary to carry a considerable weight upon it, which was dead weight, and much increased the motive power required to operate the machine. Some of the most recent patents show columns of extra weights located above the disk to effect the purpose. The principal object of Hardy's invention, the subject of patent No. 556,972, is found in his conception of means for overcoming the defects above stated, though he also stated a purpose "to so arrange the landside wheel relatively to the plowing disk that it shall form a pivoted support by which the plow may be turned easily at the corner or end of the furrow." That patent was made the subject of a suit brought by Sanders v. Hancock (128 Fed. Rep. 424).

His main purpose Hardy accomplished by removing the dead weight hitherto found necessary to drive the disk into the ground, and turning the upper edge of the disk to a backward inclination, so that in operation it would stand not only at a horizontal angle to the line of draft, but also at an angle to the perpendicular plane of its former position. The results of this change were important. The cutting edge of the disk in its lower forward section would enter the ground at an angle more acute, the tendency of which would be to give the disk a dip or "lead" under the soil instead of rolling over it. This dispensed with the weight theretofore put into or upon the machine to impel the disk into the soil. The soil when cut up from below would slide upward and off the concave of the disk in much the same manner as it slides on the moldboard of the common plow, instead of being scraped and crowded off. Both of these features—the lightening of the load and the relief of the obstruction to the movement of the earth in front of the disk—would, of course, diminish the motive power required for the operation. Moreover, the compaction of the bottom of the furrow would be avoided, for the new angle of inclination which Hardy's invention contemplates could be so adjusted that the disk would not be riding upon the bottom of the furrow and dragging over it, but would be lifting off its furrow from the moment it is severed by its cutting edge. After the introduction of this improvement the use of these plows rapidly increased, and they were accorded public favor.

The second claim of the patent, which was the only one involved in the suit above mentioned, reads as follows:

"(2) In a rotary plow, the combination with a plow-beam, of a box-bearing arranged on the plow-beam, an axle rotatable in the box-bearing, a plowing disk secured to the said axle, rotated solely by the natural draft thereof and the friction of the soil, set diagonally to the line of draft and inclined out of a vertical plane for cutting the furrow, and turning the soil therefrom, a furrow wheel mounted on an axle at the same side of the plow-beam as the plowing disk and arranged in advance thereof, an arm pivoted to the rear portion of the plow-beam and provided with a caster-wheel arranged in the rear of the plowing disk, and a stop device for limiting the swinging motion in one direction of the arm carrying the caster-wheel, said furrow wheel and caster wheel being inclined for resisting the side pressure of the plowing disk, substantially as described."

In its physical aspects the change in the position of the disk by Hardy does not seem large, but it was an important one, and contributed much to the final success of these plows.

But this would seem to follow from the shape of the cutting rings, which are very concave.

A patent to Niles, issued in 1882, for "improvements in revolving plows" (so called, but, in fact, revolving harrows), shows the disks set not only at an angle to the line of draft, but also at an inclination backward from the vertical. He describes as his preferred form a disk having a flat working face. But he says, "if it is desired, the disks may be made somewhat dishing, in which case a better moldboard effect will be produced" than with ordinary disks. And he further says:

"Now, when the machine adjusted in this way is drawn forward, this double inclination of the disks will cause them not only to cut into the ground, as shown, but also to turn it over, instead of crowding or scraping it outward from the working face of the disk in the ordinary way—that is, the portion of the disk back of the point or cut will have a moldboard action on account of the inclination downward of its axis of rotation. This moldboard action, whereby the soil is turned in furrows, is obtained to a greater or less degree by changing the angle of inclination of the shaft to the line of progression. . . . As the shafts are inclined backward more and more, the disks cut deeper, and turn the soil over more completely."

It is difficult to distinguish this from Hardy's conception, said the court in deciding the case. It is true it is found in a slightly different kind of machine. But they belong to the same family—a very kindred art. The court thought there was no patentable novelty in Hardy's principal idea, that of the peculiar position of his disk. If it had been new, there could be no doubt it would have made his combinations new and patentable.

WHAT CONSTITUTES INFRINGEMENT.—The case of the Bullock Electric Manufacturing Company vs. the Westinghouse Manufacturing Company (129 Fed. Rep. 105) brings out a phase of the question of infringement that may be helpful to inventors who are not fully versed in patent law. The facts of the case are briefly these: A preliminary injunction was granted restraining the defendant in an infringement suit from "the making, using, or selling of any apparatus embodying the inventions recited or specified" in the case of three patents. The first two covered combinations of mechanical elements, one element in each being a motor which operated by the method of the third patent, covering such method alone. During the suit defendant made and shipped the motor of the patent to a customer in Canada, with the expectation and intent that it would there be used in the devices of the combination claims of the first two patents and in the practice of the method covered by the third patent. The court held that the defendant was not chargeable with infringement nor guilty of a violation of the injunction. The grounds of the decision are these: The making or selling of a single element of the combination is not an infringement of the patent covering the combination, and not the elements separately; the making or selling of a machine adapted to practise the method of the third patent was not an infringement of the patent; and the use of the patented combinations or the practice of patented methods in Canada was not an infringement of the United States patents, and consequently defendant was not chargeable with contributory infringement.

EXCEPTIONAL COMMERCIAL SUCCESS AS A PLEA FOR NOVELTY.—The Ferry patent, No. 574,894, forms the subject of an infringement suit recently decided in the Circuit Court for the Southern District of New York (Ferry vs. Waring Hat Manufacturing Company, 129 Fed. Rep. 389), in which Judge Lacombe handed down an instructive opinion.

The patent in question relates to what are known as hat packing rings or stays. The manufacturers of hats ship these articles in tall boxes, each containing several hats. To keep the hats separate, so that they will not rub against one another, hat packing rings are employed. For many years packing rings of various forms have been in use. Any plain strip of pasteboard of suitable width, curved to conform to the contour of the hats, might be employed for the purpose. Obviously, however, the sharp or rough edge of a piece of pasteboard would chafe the hats wherever it came in contact with them. Prior to the granting of Ferry's patent, various expedients had been adopted to overcome this difficulty. Strips of paper were pasted over the raw edges of the cardboard; or they were bound with flannel or other soft material; or the edges were broken over so that they stood at an angle with the body of the strip, forming a flange or broader strip upon which the hat could rest.

Ferry applied for a patent in 1880, which was issued in 1891, covering a ring of a rigid cylindrical shape, to contain the hat crown, the edges of this ring being curled outwardly so as to present a perfectly smooth, unbroken surface for contact with the crown and brim of the hat.

To use the words of Judge Lacombe, "The evidence establishes with a conclusiveness rarely found in patent suits, that the advance from Ferry's patent of 1891 to the one in suit has produced a marked saving in the cost of manufacture and in the amount of waste, and has vastly enlarged the output field of the manufacturer. The earlier rings had to be completed as rings before shipment; that is, the ends had to be fastened together, or the edges would uncurl. Then, since freight is regulated to some extent by the size of the package, the manufacturer could supply only his immediate neighborhood. The device of the patent may be 'nested' and shipped to remote places, each ring to be there fastened by insertion when put into use."

In view of this evidence, the court granted an injunction and an accounting to the complainant.

PHOSPHATE BAKING POWDER DECISION.—The United States Circuit Court of Appeals in New York has recently rendered a decision sustaining the patent of C. A. Catlin, assignor of the Rumford Chemical Works, covering the use of coarse or granular phosphate in baking preparations.

The facts appear to be that formerly the phosphatic material was in a finely powdered condition, and that the baking powder made therewith rapidly deteriorated. To overcome this difficulty, Catlin used the phosphatic material in a coarse or granular condition.

The vital question was: Did the substitution of the coarse for the fine material constitute an invention? which the court answers affirmatively. In deciding the case, the court defined the difference between the phosphate previously used and that covered by the patent as follows: "The former was essentially free from granular (coarse) phosphatic material; the latter is essentially free from pulverulent (fine) phosphatic material. A percentage of coarse particles was found in the former, and a percentage of fine particles is found in the latter, but the predominating characteristics are that the former was essentially fine and the latter essentially granular."

PRESUMPTION FROM GRANT OF PATENT.—The case of the American Soda Fountain Company against Sample (130 Fed. Rep. 145) involved the validity and infringement of the Sample patent (No. 498,962) for a draft tube for soda fountains. The special feature of the claims involved was the subdivision of a tube extending from the valve into branches, so as to reduce the pressure when it is desired to use the soft stream in filling a glass. These claims were held void for lack of patentable novelty in view of the prior art, especially in view of the Clark patent and the Fergus patent of 1872.

In deciding the case the court stated that the fact of the file wrapper's disclosing the granting of a patent as applied for, without any reference, does not add force to the presumption of novelty arising from the grant, but rather to the contrary, where there were prior patents for devices in the same art, which are obviously closely analogous to that described in the application.

The United States Circuit Court for the Southern District of New York has granted a perpetual injunction to Alexander von Faber-Castell, the sole surviving member of the copartnership of A. W. Faber, against John Eberhard Faber, enjoining him from using the name Faber alone as applied to pencils and stationer's rubber goods, and from using the name Faber Pencil Company or E. Faber Pencil Company. The injunction furthermore restrains the making, selling, and advertising of any lead pencils in which the Faber, or Faber Pencil Company, or E. Faber Pencil Company appears. The Court, however, permits the use of the name Faber when prefixed by "Eberhard" or "John E." or "J. Eberhard." The usual accounting is also granted, whereby the plaintiff is enabled to collect the profits which have accrued to John Eberhard Faber through the wrongful use of the name Faber.

An inventor, in claiming a combination of certain elements, is not confined to the particular form of device of either of them described in the specifications, but is entitled to anything of the same general character which is a mechanical equivalent.