

## Legal Notes.

**ANTICIPATION BY PAPER PATENT—IDENTITY OF IDEAS.**—The following remarks by Judge Brawley in the case of *Ideal Stopper Company vs. Crown Cork and Seal Company* (131 Fed. Rep. 244) will be found of interest to inventors. The invention involved was a bottle stopper. The single question presented was whether the Young British patent disclosed and anticipated the alleged invention of the Painter patent. The appellant's case rested upon the proposition that there is "substantial identity of the inventive idea of the Young patent with that of the Painter patent," and the argument of the appellant was that every element or feature of the Painter device is found in the Young patent. If the inventive idea was Young's, and not Painter's, and Painter had simply improved upon Young's conception, and if any skilled mechanic could take Young's patent and by a combination of the same elements, differing merely in degree or in detail, or in the substitution of equivalents, could produce a bottle stopper substantially the same as Painter's, merely varying the form of mechanism, but without involving any of Painter's ideas, then it would follow that Young was the pioneer in this art, and not Painter. But if the entire scheme of Painter was radically different from that of Young, and if, in construction, operation, purpose, and result, the invention set forth in Painter's patent was not responsive in terms or substance to the Young construction, and the same or non-equivalent elements were not used in substantially the same way to produce the same result, and no mechanical skill working upon Young's plan could ever produce the same result that Painter accomplished, then it would follow that the inventive idea was different, and any modification or improvements worked out upon Painter's idea must be tributary to it. The question to be decided was mainly one of fact, and, whatever doubt there may be as to the correctness of the court's conclusion, there is no doubt as to the legal principle which governed it.

Robinson, in his work on Patents (sections 272, 892, 893, 894, and cases cited), states the principle:

"The test of the question of identity in the inventive idea is whether the compared inventions perform the same functions by the same modes of operation. If the effects produced are substantially different, there is no identity. If the effects are the same, and the functions are essentially distinct, there is no identity. If the functions are the same, and the modes of operation by which they are performed are radically unlike, there is no identity. Contrariwise, where the effects are identical, the functions identical, and the modes of operation identical, the ideas embodied in the two inventions must also be identical." The court said:

"In determining the question of identity of the inventive idea, it is not a sufficient answer to say of any alleged anticipation that it was a mere paper patent, and that the same had not been operative or commercially successful; for prior existing conditions might not have stimulated full development. To discover the inventive idea that was in Young's mind, we naturally look to his statement of invention and to the drawings intended to illustrate it, for that is supposed to embody his ideas. We do not mean that Young's invention is necessarily limited to his own conception of its possibilities. Columbus would not be the less entitled to be considered to have discovered America because, when he set out on his voyage his object was, not to discover a new continent, but a new route to an old one; and if Young gave to the world an invention which was intended for one purpose only, yet which so clearly suggested the thought which afterward bore fruitage in Painter's invention, and which required only a more deft machine to develop it, then Young might justly be considered the pioneer in the art of inventing bottle stoppers, and Painter would be entitled only to such improvements as his mechanical skill wrought upon Young's invention. The line which separates invention from mechanical skill is at best a narrow one, and the difficulty of demarkation in this case is enhanced by the fact that of necessity we look upon Young's invention with eyes instructed by Painter's and other subsequent patents, and must take care that we do not in such light so reconstruct Young's patent as to see in it those possibilities which may seem very obvious now, but which may not have been disclosed by the patent itself; for, vague and uncertain as may be the line of demarkation between mechanical skill and invention, we could not deny Painter the right of invention, unless the idea upon which his patent is predicated is so clearly set forth or suggested by Young that a mechanic, with Young's patent before him, could by mere mechanical skill so modify proportions or change the mode of operation as to overcome the difficulties which excluded the prior device from commercial utility, and thus make fruitful the inventive idea which before was futile, merely through lack of

the mechanical skill necessary for its development.

"This is not one of those great inventions that awaken admiration for the genius of the inventor and stir the heart like a trumpet. It is nothing but a bit of metal and a bit of cork, so co-operating that the result is something very simple, very cheap, very efficient, and so very much needed that the wonder is that nobody did it before, but nobody did. It is not surprising that Young did not, for he was not working toward this result. He only sought to devise a new method of holding down the stopper, not to produce a new stopper. He had a different conception, worked on a different plan, and produced a different effect. He, too, it is true, used a bit of metal so coiled as to enter the mouth of the bottle, which in its devolution might be flattened out. There is no shoulder under the disk groove, with diameter less than the unexpanded disk, which would prevent its slipping into the bottle; for this shoulder, according to Young's conception, was not necessary, as the disk was not designed to enter until the cork was in, and was to rest on that. His coil might, by unwinding, serve the purpose of holding the cork in its place; but it could not possibly, by the very law of its construction, maintain that close circumferential contact with the wall of the bottle neck essential to make an effective stopper, either with or without the packing or gasket. It has not and cannot have the permanent flexion which Painter's disk has. It is a cone of thin metal, something like a metal ribbon, which is designed to perform its function by unwinding, liable to overlap, and entirely incapable of forcible expansion against the wall of the bottle like a continuous flange. The primary idea that an efficient seal could be effected by it alone, or by the lateral pressure of its edges against a packing of elastic material which would thus insure the filling of any irregularities between the metal and the adjacent wall, is entirely lacking in Young's invention. Nobody has suggested, and nobody would pretend, that Young's disk alone could be used for sealing a bottle, while Painter's alone would seal the bottle, provided the bottle neck was perfectly round and regular; the gasket or packing being made necessary only by reason of the irregularities and imperfections incident to cheap bottles. It does not follow that the inventive idea is the same because each employed a metallic element and an elastic element to accomplish the same purpose; for, if terms are employed which avoid defining the distinctive character of the device or imperfectly describe it, few patents would escape anticipation, for nearly all employ the same elements. The imagination may find in Young's "disk of sheet metal" the cup-shaped disk of Painter; for men are prone to see what they want to see. Polonius saw in the cloud first a camel, then a weasel, and then something "very like a whale," as Hamlet bade him. Taught by Painter, we can see that a "disk of sheet metal" may be converted to a purpose altogether different to that which Young conceived, not by a mere mechanical change, but by a functional change, due to a conception of a different plan. Young, it is true, does not in his statement of invention require that his disk of sheet metal should be slit; but his drawing shows it, and it cannot operate on his plan unless it is slit radially to form the coil or cone to enter the bottle neck, so as to unfold. So, with the cork. It is not a mere matter of dimensions, for that is simply a question of proportion, merely one of mechanical judgment; but the difference between the cork as used by Young and the thin layer or packing used by Painter is a difference of function. With Young the cork is the stopper; with Painter the packing is merely ancillary to the stopper. The difference in the interior groove and shoulders in the bottle neck is also one of function. This has already been pointed out, but a mere inspection of the drawings shows it more plainly than any words of description.

"That there is a superficial resemblance between the two patents must be conceded, in that both use a combination of metal and elastic material; but it does not follow that there is an identity in the inventive idea, for, as we have endeavored to point out, each was guided and informed by a different purpose. The elements are combined upon a fundamentally different plan, and one cannot be merged into the other by mere changes in proportion or degree or by the substitution of equivalents. The mechanical skill which may be invoked to exclude the idea of invention must be mechanical skill applied in accordance with the direction of the alleged anticipating patent; not the skill which, taught by the invention in suit, seeks to reform and recognize the former patent, so disguising it under a cloud of subtlety of argument and suggestion as to transform it.

"The judgment of the court below is affirmed."

**THE MANUFACTURE OF PATENTED INVENTIONS.**—In the early days of patent law, it was the desire of the law-making bodies to give to inventors for a limited term the exclusive right to their inventions; and that inventors would, by neglecting to introduce their inven-

tions, prevent industrial progress and fail to receive a reward for their labors, seemed to be highly improbable. But when, in the administration of the patent laws in some countries, it was found that inventors often delayed for a considerable time the introduction of their inventions, and, in some cases, the use of the inventions by society for the full patent term was prevented, the question whether the inventor should be required to commence the manufacture received consideration. By the failure of a patentee to introduce his patented invention, not only is its use prevented by the public, but where improvements on the device have been made by others, the use of the improvements is prevented even by their inventors. It will thus be seen what a serious loss to our progress in the arts is a failure by a patentee for a long period to introduce his invention.

Many of the foreign countries have laws requiring that a patentee commence the manufacture of the invention within a stated time, but such laws have been harsh remedies, which go to the other extreme in adjusting the rights of the patentee and the public. The question has been considered in some countries in a more judicial manner, and the rights and duties of the patentee and the public have been defined with a view to see that the public was not deprived of the use of the invention, but at the same time that the inventor received a full reward for the disclosure of his invention, and that his rights to the invention and to its use were protected. The value of an invention to an inventor is in its use, and when he is not using the invention, which use usually necessarily benefits the public, he is not receiving his reward to which he is entitled. By requiring a patentee, for a sufficient consideration, to permit another to use his invention, when he has neglected to use it himself, is not a great burden on the patentee. Many countries have therefore passed laws making patents, the owners of which have failed to commence the introduction of the invention within a reasonable time of the grant of the patent, subject to the grant of compulsory licenses. The principle of the laws is just and the rights of the parties will be afforded much better protection thereunder than under the old conditions which required the manufacture of the invention by the patentee.

In order to prevent any injustice, every compulsory license law which is passed should for a short period make the patents free from the grant of licenses, in order that the patentee may have an opportunity to commence the manufacture himself, and the term of the license should not be unnecessarily long, which might deprive the patentee of the opportunity at a future time to regain the sole right to the manufacture. Another important provision which the laws should contain is one which requires the applicant for a license to pay all the costs of the application, including the necessary expenses of the patentee, in order that the patentee's rights will not be sacrificed by a lack of funds which may be necessary to contest the right of the applicant to the license, the length of the term of the license, and the consideration to be paid.

The subject of the grant of compulsory licenses to persons who are prevented from the use of inventions by patentees, who do not use them themselves, is receiving renewed consideration because of the trend of popular opinion as illustrated in the provisions concerning the question, which have recently been incorporated in the patent laws of several foreign countries.

In the United States, patentees are not required to commence the manufacture of their inventions nor are they required to grant licenses when they neglect to manufacture.

**CONTEMPT OF COURT IN DISOBEYING AN INJUNCTION.**—In the case of the *Westinghouse Electrical and Manufacturing Company vs. The Sangamo Electric Company* (128 Fed. Rep. 747), application was made to punish the defendant for contempt in selling a meter alleged to constitute an infringement of complainant's meter, in violation of an injunction. The sale had been made under the advice of counsel that defendant's device did not infringe complainant's patent. This, while insufficient to protect the defendant if it were in fact an infringement, would be considered by the court in determining whether there was an intentional disregard of the injunction tending to bring defendant into contempt.

It appears that but a single sale had been made by the defendant since the injunction was granted, and that this was a meter differing in form, if not in principle, from the one established by the decree as an infringement.

A patent for an improvement or manufacture which does not accomplish the objects and purpose of its conception and is impracticable does not anticipate a later patent upon a similar device capable of successful operation, unless the objections to the device of the prior patent relate merely to details of construction, or where it can be converted into a successful device by a mechanic of ordinary skill.

## RECENTLY PATENTED INVENTIONS.

## Electrical Devices.

**ELECTRIC DISPATCH-BOX FOR OVERHEAD LINES.**—R. T. PISCICELLI, Naples, Italy. The present invention relates to some improvements in the construction of the dispatch-boxes and of overhead lines to be used in the system of electric mail-service described in a former patent application, which improvements are intended to diminish the resistance of the line and of the air to the translation movement of the dispatch-boxes of the type described in said specification, at the same time diminishing also the trepidations of the line. Many of the improvements may find application in cases where electrically-propelled vehicles shall run at very high speed.

**TRACK STRUCTURE.**—L. STEINBERGER, New York, N. Y. Mr. Steinberger's invention relates to track structure and admits of general use, but is peculiarly applicable where it is desired to have a rail mounted movably upon its support. His invention is of special value in connection with electric railways, and especially as third rails used for the purpose of distributing electric currents to movable vehicles.

**TROLLEY.**—W. R. COOPER, East St. Louis, Ill. The trolley comprises a trolley pole consisting of two telescoping members so arranged that to reverse the car it is not necessary to swing the pole around in the usual manner but the motorman needs merely to reverse the motor when the pole will shorten due to the telescoping members sliding one upon the other and it will then lengthen out as it assumes its rearward inclination.

**TROLLEY-WHEEL.**—J. J. BOUCHARD, Bradford, Pa. In this patent the invention has reference particularly to the lubricating devices of trolley-wheels and the like; and the object of the inventor is to produce an improved construction of such wheels, having in view the efficient lubrication thereof.

## Of Interest to Farmers.

**FRUIT-GATHERER.**—F. D. HENDRICKSON, Amboy, Wash. This invention is an improvement in that class of hand fruit gatherers or pickers which consists of a receiver or skeleton basket suspended and adapted to oscillate in the forks of an extended handle. Means are adapted to receive and detach fruit conveniently and for preventing injury thereto.

**ENSILAGE-CUTTER.**—M. W. DREW, Bliss, N. Y. In the usual cutting-wheels there are openings at the back of the knives, and while operating the husks or the like pass into these openings, wind around the wheel-spokes, and clog in the corners, thus throwing the wheel out of balance, and consequently requiring an increased power to run the machine. Mr. Drew's wheel obviates these difficulties.

**CORN OR GRAIN KNIFE.**—L. R. TILLEY, Colorado, Texas. The invention is in the nature of a device employing clipping-blades and adapted to be fastened to the user's hand. The blades are operated by simple closing and opening action of the user's fingers. The object had in view is to provide a simple, inexpensive, and novel device of this character adapted for clipping the heads of standing corn, grain, and for other similar use.

**CRATE.**—J. H. WINKELMEYER, Eldon, Mo. In the present invention the inventor has made an improvement in crates, especially designed for use in carrying poultry and the like and which can be knocked down for reshipment. Among the advantages means are provided for protecting the locking-bar against damage in piling crates upon each other, and also for securing the crates in knock-down position.

**PLOW-WHEEL SCRAPER.**—W. J. ROBINSON, Hudson, N. Y. The aim of the inventor is the provision of a new and improved scraper which is simple and durable in construction, easily applied to any type plow, and more especially designed for keeping the peripheral face of the wheel on the plow-beam free of dirt to allow plowing to a uniform depth.

**INCUBATOR.**—C. E. GOSS and G. W. GOSS, Edith, Texas. When it is desired, the eggs by this improvement may be rotated, as is necessary in artificial incubation, by moving the false bottom of each tray along through the slot in the slide until the end section has been withdrawn. The eggs will all be rotated through substantially half a turn. The hinging of this section permits it to hang vertically from the tray and avoids the closing of the space between it and the walls at its side.

**INCUBATOR.**—W. H. HUGHES, New York, N. Y. The inlet for fresh air passed through the egg-chamber is removed far as possible from lamp and outlet of heating-casing so as not to become contaminated by fumes of burning hydrocarbon, which if in contact with the eggs would likely injure them. Casing and chamber do not communicate and no danger arises there. Distribution of air about the casing makes it properly heated, and distributors insure even heat to eggs. Two regulators control temperatures, the controlling means for both being situated over substantially the center of the egg-trays, and under influence of average conditions in egg-chamber.

**FENCE-POST.**—J. M. NARSH, Fort Worth, Texas. Mr. Narsh has devised a post whose central portion web is thinner than its sides, so that while it has due strength and rigidity, adapting it to be driven without bending or

buckling, the tongues for holding the fence-wires may be easily cut out of the same in process of manufacture. The post has reinforcements or filets formed at its inner angles to materially strengthen the same longitudinally and transversely. Improved braces for the post are further devised by the inventor.

**PROCESS OF MAKING BUTTER.**—W. A. IRWIN, Dallas, Texas. In this case the invention is in the nature of an improved process of making butter designed to increase the yield of the final product and to provide a wholesome, well-flavored, nutritious, and digestible food product for the table that shall utilize all or nearly all of the valuable constituents of the ingredients.

**GATE.**—W. H. FUQUA, Roswell, New Mex. This is a gate of the type in which a lever is employed to operate the gate, the lever being actuated by a pull-cord or by the passing of a vehicle. The mounts on the gate opening lever devices for releasing the latch. When the cord is pulled to actuate the gate lever its initial movement actuates the latch controlling device on said lever.

## Of General Interest.

**NEGATIVE-HOLDER.**—A. J. WEED, New York, N. Y. The object in view in this case is the provision of an extremely simple article capable of easy application to the edge portion of a plate for holding the latter in a secure manner. A further object is to produce a holder which on application to a plate is bent in a way to produce bearing-points on which the holder when inverted may stand in a washing-bath, whereby the negative may be suspended with the film side facing downward in running water, so as to wash the film without exposing it to lodgment of sediment in the water.

**TWINE-HOLDER.**—R. L. WEIR, Winnsboro, Texas. The holder will always hold the end of the twine upward in most convenient position. This is attained by providing a body having a rounded bottom portion weighted with respect to the upper part of the body, so that no matter how the holder is thrown it will always roll with the weighted side of the body downward. From the upper side of the body a body is projected preferably in the form of a tube and through which the twine is drawn, so that the end of the twine always hangs from the upper end of the tube.

**FIRE-ESCAPE.**—H. VIIEGGE, Grand Island, Neb. This invention refers to fire-escapes and admits of general use, but is of peculiar value in cases where it is desired to enable persons to escape singly and without assistance from any source by merely descending from a door or window. The invention is in general terms somewhat similar to a former patent granted this inventor for a fire-escape.

**STEREOTYPE-CASTING BOX.**—F. SCHREINER, Plainfield, N. J. The object of this improvement is the provision of a box constructed in such manner that any size of plates for printing can be cast with cores or legs that will cross each other level and produce type-high plates, so that whether a small or large sized plate is cast it will have level crossing bearings which will resist printing much better than those having lengthwise-running legs, as heretofore formed.

**BACKING FOR DISPLAY-BUTTONS.**—D. PUDLIN, New York, N. Y. One object in this instance is to construct a backing with a continuous inwardly-turned flange at its inner edge, the flange being turned in direction of the front portion of the backing, within which flange the shank of a pin is secured and concealed, thereby producing a continuous smooth inner edge surface, materially strengthening the backing and preventing the shank of the pin from working loose and projecting at its end to detriment of surface upon which the button may be fastened, as the shank of the pin is held securely throughout its entire length.

**BUILDING CONSTRUCTION.**—A. MENCZARSKI, New York, N. Y. In this patent the invention relates to fireproof buildings; and it constitutes an improved structure for forming the floors and ceilings of such buildings. This construction provides a maximum dead-air space between floor and ceiling, which is very essential in preventing transmission of heat, which transmission in case of fire would allow flames to spread quickly and also in lessening the weight of construction to the minimum.

**PLATE-HOLDER.**—W. F. FOLMER, New York, N. Y. The inventor's purpose is to provide a plate-holder which will not leak when a slide is being introduced into the holder or is being withdrawn therefrom and to admit of both movements of the slide being expeditiously and conveniently done. A further purpose is to provide a spring or tension controlled sealing device for the slide of the plate-holder applicable without necessarily weakening the holder and which will be expansive at all times without liability of light being admitted to the plates of the holder.

**WATCH-GUARD.**—J. A. CRANDALL, New York, N. Y. In this patent the invention relates to a watch-guard; and its main object is to provide means which may be attached to a watch and placed in the pocket of the wearer, whereby any attempt to remove the watch from the pocket will be prevented or the notice of the wearer attracted thereto. The device is not cumbersome nor is it expensive.

**METHOD OF PURIFYING WATER.**—T. JONES, Acme, Texas. The invention relates to purification of water, especially for domestic uses, the more particular object being to remove gypsum and certain carbonates, together with organic substances, should any be present. It admits of general use, but is of peculiar value in certain sections where housekeepers have been annoyed to a great extent by the presence of impurities in water.

**FILE.**—F. C. BILLINGS, Macon, Mo. The improvement made by Mr. Billings relates to a file of that class in which a box or case for the papers is provided, this box having an open side and a spring-retained follower to hold the papers snugly yet removably in place. It is designed especially as a means for conveniently holding music-sheets in condition for ready access, but may be useful for filing papers of any sort.

**TIME HAND-STAMP.**—W. F. BARTHOLOMEW, New York, N. Y. The object of the present invention is the provision of certain improvements in time hand-stamps whereby the handle carrying the pointer is automatically locked against accidental movement. It relates to stamps, such as shown and described in the application for Letters Patent of the United States, formerly filed by Mr. Bartholomew.

**BUILDING CONSTRUCTION.**—E. MAY, New York, N. Y. The object of this invention is to produce a building construction or form which is well adapted for building floors, partitions, and for similar uses. When the cement or binding material has dried and become set a very firm and rigid structure results, and this, due to wires imbedded in the cement, is substantially reinforced or braced. The structure presents a very neat appearance, the cement not being exposed to view at the edges of the slabs.

**POLE-HOLDER.**—W. H. FUQUA, Roswell, New Mex. This invention is an improvement in pole-holding apparatus especially intended for holding heavy poles, such as telegraph, telephone, and other poles. It sets a pole quicker than in the ordinary way, and if bent or crooked small wedges interposed between sections and the pole tilt the pole as required. The pole is elevated about one foot from the ground so that a pole decayed in the ground is in many respects as good as new, and in applying the improvement to a pole in the ground the latter will not have to be moved in any way.

**OIL-CUP.**—A. UHRI and A. G. HOUCK, Florence, Col. Messrs. Uhri and Houck in this invention have for an object the provision of a cup of few and simple parts that may be more conveniently opened and closed than the ordinary cup and adapted to reliably feed thick oil or grease for lubricating purposes. The cup is specially suited for use in roasters, kilns, etc., where an oil-cup is necessarily exposed to unusual heat.

**METALLIC BUTTONING DEVICE.**—E. I. RAINS, New York, N. Y. The inventor claims as an object the provision of a device more especially designed for yieldingly connecting a boy's pants with the shirt-waist or blouse and arranged to readily compensate for strains, especially when the wearer bends over in a forward direction, the device yielding sufficiently to prevent breaking or tearing of connected parts.

**ADJUSTABLE SUPPORT.**—E. T. PALMENBERG, New York, N. Y. The intention of this inventor is to provide an adjustable support for carrying display glass plates, trays, shelf-boards, and the like and arranged to allow convenient adjustment of the support for different widths of the plates, shelf-boards, etc., and to securely hold the same in position. The invention relates to window and store fixtures.

**DISPLAY-FIXTURE.**—E. T. PALMENBERG, New York, N. Y. In this patent the improvement relates to window and store fixtures; and its object is to provide a display-fixture in the form of a universally-adjustable arm adapted to be moved conveniently into any desired position for the display of the goods to the best advantage.

**MOLDING-FLASK.**—W. MARSHALL, Lyndon, Kan. The improvement refers to a flask which, although capable of general use for molding plastic substances and casting metals, is especially applicable for the molding of rubber and composition dental plates. The principal objects are to provide a flask of this character which can be readily taken apart, which will have no projections easily breakable, and which will provide a surface which will leave ample room to work on the teeth after they are invested.

**TRUNK-FASTENING.**—T. J. LIVSIE, Norfolk, Va. In the present case the invention is an improvement in trunk-fastenings, being in the nature of a combined strap-fastening and lock, so arranged that the lock will hold the strap taut and the device for connecting the strap will operate as a lever in tightening the strap in the use of the device.

## Heating and Lighting.

**COMBINED STEAM-GENERATOR AND GRATE.**—J. C. RAYMOND, New York, N. Y. By this invention Mr. Raymond seeks to provide a grate in the form of a tube wound helically, producing a cylindrical grate with the openings between the coils of sufficient size to permit the escape of ashes and at the same time sufficiently small to retain fuel when it is

being burned. The grate is designed for use with coal, coke, wood, or the like, and provision is made for introducing the fuel and for removing cinders from time to time.

## Household Utilities.

**BEDSTEAD.**—A. FIELDS, Gilmerton, Va. Briefly stated this invention relates particularly to a novel construction of head and back rest adapted for adjustment to support a person in bed at any desired inclination. It is especially adapted for use in connection with and to form a part of an iron or other metal bedstead; and can also be applied to wooden or other bedsteads as desired.

**FOLDABLE METALLIC BEDSTEAD.**—C. P. BROWN, Springlake, Mich. The leading feature of this invention is the provision of means by which the bed-frame is balanced without resorting to weights, springs, or the like, thus making the operations of raising and lowering the bed-frame easy and rapid. Means provide for drawing the several parts into firm interlocking relation when unfolded for use. It relates to improvements of the kind disclosed in a prior application filed by Mr. Brown.

## Machines and Mechanical Devices.

**APPARATUS FOR COATING NAILS.**—C. WAGGONER, Kokomo, Ind. The improvement made by Mr. Waggoner in this case has reference to apparatus intended particularly for coating nails with a cement compound, but useful for various other analogous purposes, as will be seen by skilled mechanics. Means provide for suiting the apparatus to handle nails of any size.

**LATHE TEST-INDICATOR.**—G. G. RIGGS and A. E. BABIN, Waterbury, Conn. The invention relates to indicators used for centering and truing up work to be turned upon a lathe. It presents certain improvements in the construction of such apparatus whereby the same is rendered more efficient, accurate, and sensitive and also whereby it is given a combinational character and admitting of quite a variety of uses readily suggested to those skilled in the art.

**STOP-MOTION.**—H. L. POWELL, St. Marys, Ohio. The improvement refers to a mechanism for automatically stopping the motion of rope or equivalent transmission means upon breakage or other derangement thereof. According to the embodiment of the invention the inventor employs a prime-moving device restrained by the normal transmission means and active upon the derangement of said means, this device when active transmitting movement to devices for throwing out of action the driving mechanism.

**TRANSMISSION-GEAR.**—A. E. OSBORN, New York, N. Y. In this patent the invention has reference to a means for transmitting motion at different speeds and in different directions. It comprises a system of gearing of the sun-and-planet type especially adaptable to motor-vehicles, but useful in other connections—as, for example, on machine tools. Primarily, the object is to provide a gear of this character having the least number of parts consistent with sufficient strength and efficiency.

**VARIABLE SPEED AND POWER TRANSMISSION DEVICE.**—C. L. ROSENEVIST, Niagara Falls, N. Y. In transmission of motion and power from a prime mover to a machine or the like which is subjected to considerable variations in load strains it is essential that means be provided whereby compensation is afforded for such variations of load by altering the speed of motion correspondingly, also that slip of transmitting medium be avoided, and that changes in speed be effected either quickly or gradually, while driver and driven machine are in motion. The device affords a very simple practical speed-changer that is very effective and reliable in operation. The inventor states that he has an apparatus in operation.

**COIN-CONTROLLED MECHANISM.**—H. MEYER, New York, N. Y. The object in this invention is to provide a mechanism designed for starting the motor or other actuating mechanism of a self-playing musical instrument or the like and arranged to utilize the proper coin introduced as a part of the operating device, to prevent spurious coins from being effective, and also to prevent repetition unless a new coin is introduced.

**SELF-PLAYING PIANO.**—H. MEYER, New York, N. Y. In Mr. Meyer's invention the object of the improvement is the provision of a self-playing piano arranged for the notesheet to automatically control pneumatic devices for moving either the hammer-rail or the damper-rail into an active position, to hold the same therein the desired length of time, and to then release the rail for the latter to assume its normal position.

**VENDING-MACHINE.**—F. LYNES, Johnston, N. Y. The aim of this inventor is to provide, in connection with ejecting devices, novel devices for catching and discharging disks of hard or other magnetic material that may be placed in the coin-chute, for preventing the entrance of coins when the machine is open or in operation, for discharging a disk of lead or similar soft metal, also a novel means for ejecting the articles vended.

**SIPHON.**—W. P. LOCKE and H. D. MINNICK, Canton, Ohio. That class of siphons which are provided with a starting attachment consist-