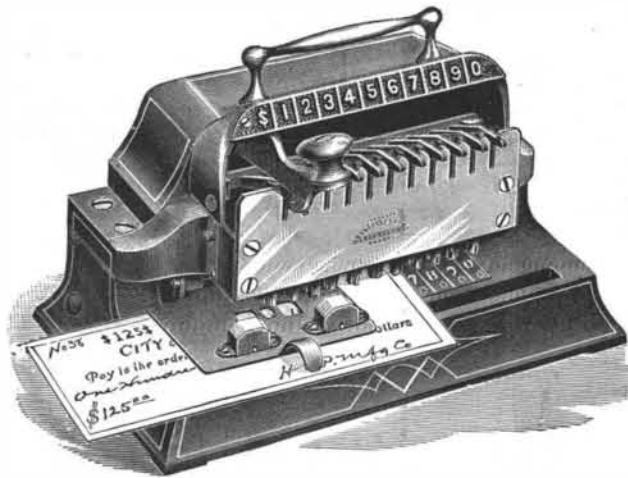


AN IMPROVED PUNCH FOR BANK CHECKS, ETC.

A simple and positive feed motion little machine, for punching out of checks figures representing the amounts for which the checks are drawn, is now being put on the market by the patentees, the Lowdon Bank Punch Company, of Kansas City, Mo., and is illustrated herewith. One of the principal advantages of the machine is the rapidity with which it can be operated, which is claimed to be twice that of other machines of

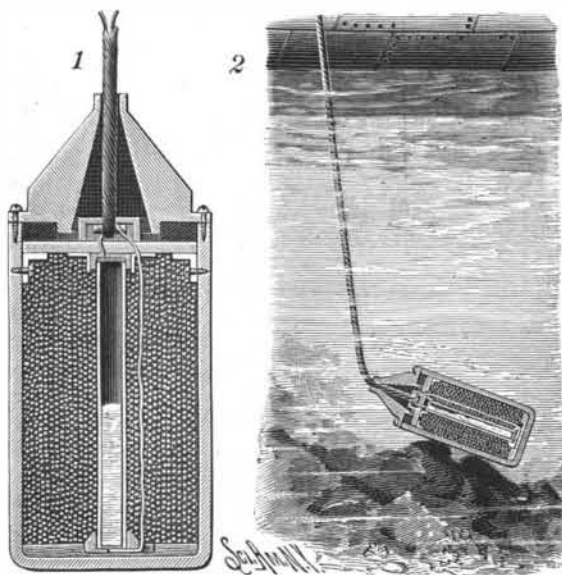


THE LOWDON BANK PUNCH.

this class. The dollar mark is on the left, and it is punched before and after the amount. In the machines made for the English market a star takes the place of the dollar mark, and is punched before, after, and to separate the pounds, shillings, and pence. The best of material and workmanship are employed in getting up this machine, which is also sold at a materially lower figure than the rotary machine. The Hoggson & Pettis Manufacturing Company, of New Haven, Conn., are the manufacturers of and Eastern agents for the machine, and also have the control of its sale in foreign countries.

IMPROVED ELECTRICAL SHOAL WATER INDICATOR.

A simple and efficient electrical device for taking soundings, and giving an alarm on board a vessel when it approaches shoal water, is illustrated herewith, and has been patented by Messrs. Pedro Vigil and Juan N. Revueltas, of the city of Mexico. The body of the sounder is a metal cylinder, with its bottom wood-lined and chambered to receive a central socket in which is inserted the lower end of a tube made of insulating material, preferably glass, closed at its upper and lower ends by disks of conducting material, the tube being about half filled with mercury, as shown in the sectional view, Fig. 1. Brackets on the inner surface of the cylinder support a plate having a metallic collar inclosing an elastic packing which covers and seals the top end of the tube, the rest of the cylinder being filled with shot, to hold the sounder perpendicularly in the water. A conical head is fitted to the sounder, and a cable passing through it, carrying two electrical conductors, is attached to the top plate within the cylinder, one of the conductors being connected with a disk closing the top of the mercury tube, while the other conductor is connected with a similar disk at the bottom. The cable communicates with a battery and sounding device, such as an electric bell, upon ship-board, and, the sounder being suspended therefrom, normally maintains its vertical position until the vessel approaches a reef or reaches shoal water, when it



AN ELECTRICAL SHOAL WATER INDICATOR.

turns upon its side, establishing electrical communication between the disks, by which an alarm is sounded on board the vessel.

For further information relative to this invention, address Mr. Pedro Vigil, No. 4 Providencia Street, City of Mexico, Mexico.

The Harvest Moon.

The harvest moon this year is that which is full nearest the 23d of September. This year it is the moon which fulls September 20. Instead of the ordinary difference between the time of rising, reaching sometimes nearly to an hour, this moon, at the time of the autumnal equinox, to those in high latitudes rises for several days in succession with an interval of only a few minutes, thus really giving much more moonlight than at any other season of the year. In the earlier days, when labor was scarce, and the interruptions to the gathering of the harvest from heavy rains were frequent, the blessing of a full moon rising within the same hour for three successive days was heartily appreciated by those in northern latitudes, and the simple-minded peasant, not understanding astronomy, supposed it was a direct intervention of the Deity in his favor. This only occurs at this period of the year. The moon is always opposite to the sun when she is full, and she is full in the sign of Pisces and Aries in September and October, these being opposite to Virgo and Libra, which are occupied by the sun in that season. Any one who will study a celestial globe will see that in those two signs of the Zodiac the path of the moon is more oblique, that is, it rises from the horizon in a smaller angle than during the remainder of the year. In plain terms, the moon moving eastward in or near the ecliptic, at the rate of about thirteen degrees per day, will descend only a short

distance below the horizon for four or six days in succession, that is, for two or three days before the full and two or three days after, thus giving a greater succession of early and brilliant moonlight evenings. From her position she does seem larger, also, to the eye, and thus there is a real glory in the harvest moon found at no other season of the year.—N. Y. Journal Commerce.

AN IMPROVED CARTRIDGE SHELL CUTTER.

A shell cutter of cheap construction, for expeditiously removing the surplus material of a cartridge shell, after



STEIN'S CARTRIDGE SHELL CUTTER.

loading and before crimping, is illustrated herewith, and has been patented by Mr. William Stein, of No. 309 Federal Street, Camden, N. J. The handle is adapted to enter the shell, a stationary cutter blade being secured in the handle a short distance from its end, with the blade projecting from the surface on one side. The blade is preferably secured in a transverse recess in the end of the handle, the recess forming a seat for the tang of the blade, a solid block, circular in cross section, being united to the handle end by a screw passing through a hole in the shank of the cutter blade and into the handle. This block forms a gauge, and one screw retains both the cutter blade and gauge in place, the surplus material of the shell being pared off by rotating the implement in the shell until the gauge comes to a seat against the wad of the cartridge.

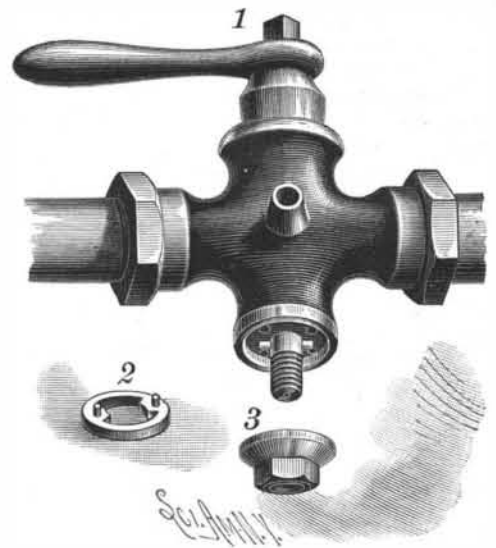
Court of Patent Appeals.

Mr. Culberson, chairman of the Judiciary Committee, has reported to the House a bill to create a Court of Patent Appeals. The bill provides that the court shall consist of one chief and two associate justices, drawing salaries of \$6,000 per annum, and the proper clerical and reportorial force. The court is to have appellate jurisdiction in patent cases coming from United States courts and the Commissioner of Patents, with a right of appeal to the Supreme Court, and all pending cases now before the Supreme Court touching patents, trade marks, etc., are to be transferred to the Court of Patent Appeals.

It is stated that plans are being prepared in the navy department at Washington for two new monitors, which, if the report is to be trusted, will be marvels of offensive and defensive strength. They are to carry a 110 ton gun, to be heavily armored, and to steam 18 knots an hour, all on a displacement of 3,500 tons.

AN IMPROVED STOP AND WASTE FAUCET.

A stop and waste faucet adapted for use either as a right or left hand faucet, making one device which may be utilized to serve a dual purpose, is illustrated herewith, and has been patented by Mr. William Briggs, of Nos. 110 and 112 Kent Avenue, Brooklyn, N.

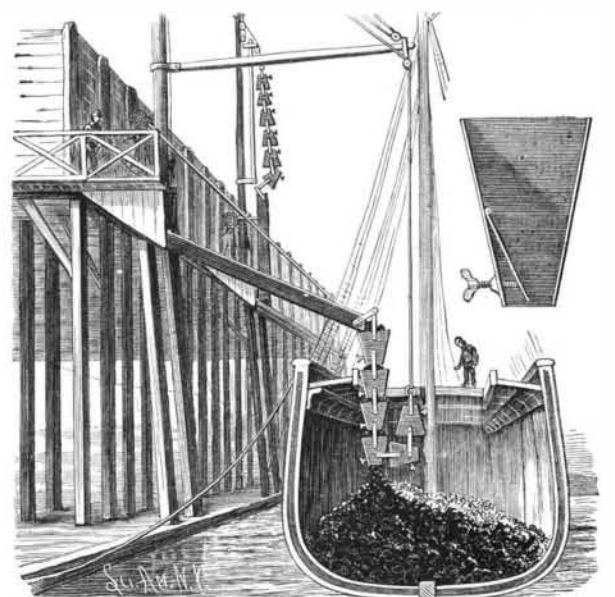


BRIGGS' STOP AND WASTE FAUCET.

Y. The key, having the usual apertures or waterways, has on its lower projecting end a reduced threaded portion to receive the usual locking nut, and in the surface of the casing surrounding the key bore are drilled four spaced apertures, the projecting end of the key having a transverse pin, or lugs on its opposing sides. A washer, shown in Fig. 2, is adapted to be placed between the nut and the lower surface of the casing, the washer having aligning lugs and integral pins adapted to enter two of the casing apertures. When the faucet is to be used as a right hand one, the washer is made to engage the casing so that the pin or lugs on the key will engage the right hand face of one of the washer lugs and the opposite face of the other washer lug. To use the faucet as a left hand one, it is only necessary to unscrew the nut and reverse the washer. If desirable, the lower surface of the casing may be recessed to receive the washer, and the apertures drilled accordingly, so that the washer will not be visible from the outside, the nut then bearing against the face of the washer and concealing it.

AN IMPROVED COAL CHUTE.

An apparatus whereby coal may be loaded from a high coal dock into the hold of a vessel below without pulverizing or breaking the coal, is shown herewith, and has been patented by Mr. John H. Du Bois, of 287 Park Avenue, Hoboken, N. J. A mast is mounted on the dock where the fixed chute is located, with a windlass for raising and lowering a hinged chute, and attached to the outer ends of the latter is a series of connected hoppers. From the lowermost hopper a rope passes over pulleys on the boom and mast, in such way that by drawing upon the rope the whole series of hoppers may be inverted, or one or more in succession, as the filling up of the vessel proceeds. The hoppers are connected together by pivoted links, and their lower open ends are of gradually diminishing area, so that the discharge from each hopper will be slower than that of the hopper discharging into it. In each of the hoppers is a plate acted upon by an adjusting



Du BOIS' COAL CHUTE.

screw, as shown in the sectional figure, whereby the discharge opening of the hopper may be increased or diminished. In this manner the drop of the coal from the chute is retarded at each hopper, or from one hopper to the other, and from the last to the hold, and all breaking is avoided.