

A LUGGAGE CARRIER FOR BICYCLES.

A simple device for attachment to the head of a bicycle, to facilitate the carrying of bundles or packages, and which will form a convenient hand carrier when detached, is illustrated herewith, and has been patented

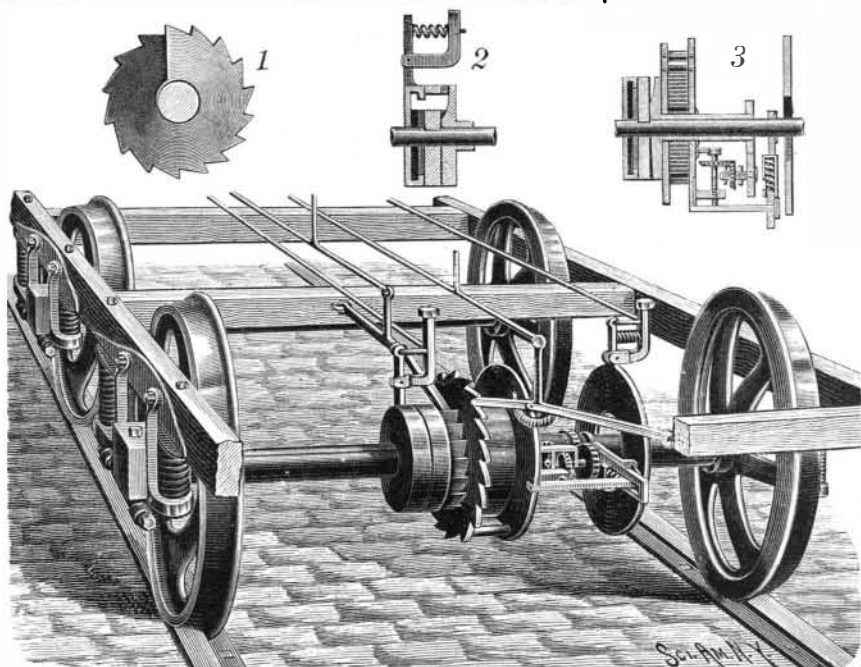


CREDLERBAUGH'S LUGGAGE CARRIER FOR BICYCLES.

by Mr. Henry S. Credlebaugh, of New Carlisle, Ohio. It is made of a stout spring-wire body, the side arms and cross bar of which are formed of a single piece of wire, adapted to be sprung in place upon the head and handle bars of the machine, as shown in the sectional view. The outer ends of the arms have eyes, in which are held the cross bar of a depending or bracket portion, also formed of a single piece of wire, and carrying a handle block having a notch adapted to fit upon the flat arm of the brake spoon, preventing lateral movement of the carrier, and holding it steadily. The construction of the carrier admits of simple modifications, to adapt it to different styles of bicycles.

AN IMPROVED CAR-STARTER.

A device adapted for use with all kinds of cars and vehicles, and designed to store power when not required for their propulsion, as in going down hill, and at other times, and give it out when most needed, as in ascending grades, etc., is illustrated herewith, and has been patented by Messrs. William P. Akers and John C. Lindsey, Jr., of Jacksborough, Texas. On one of the car axles is loosely held a sleeve having a ratchet wheel engaged by a pawl fulcrumed to the car, and pivotally connected by a link to a lever operated by the driver or conductor. On the front face of the ratchet wheel is a spiral cam, as shown in Fig. 1, on which operates a block held to slide transversely in a wheel secured to the axle of the car, the outer end of the block having a shoulder engaged by an annular flange formed on a lever fulcrumed on a bracket attached to the car, a spring holding the block in its innermost position, and a rod or rope, secured to the lever, extending to a brake-staff on the car. To the other end of the sleeve is secured a gear wheel meshing into a gear wheel on a shaft rotating in suitable bearings on the inner face of a disk rotating loosely on the sleeve, the disk having a ratchet wheel with its bearing on the sleeve, while between this ratchet wheel and the disk is held a coiled spring, fastened by one end to the disk and by its other end to the sleeve. This ratchet wheel is engaged by a pawl pivotally connected with an arm fulcrumed on the car, a semicircular arm being pivoted on the pawl, which passes through another arm connected by a link to a lever fulcrumed on the car, whereby the operator may disengage the

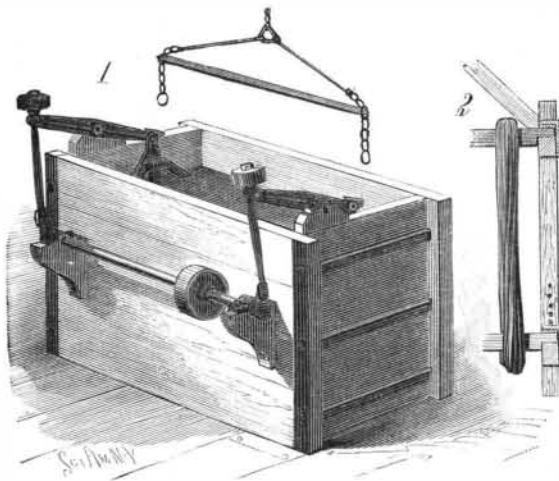


AKERS & LINDSEY'S CAR-STARTER.

pawl from the ratchet wheel when desired. Figs. 2 and 3 illustrate details of the construction, which provide for the winding up of the coiled spring, by the revolutions of the car axle, as the car goes either backward or forward, such work being always under the immediate control of the conductor or brakeman, who can also at any time cause the spring to give out its stored power to revolve the axle. This device may be fitted to a number of axles, or be duplicated, the power stored in the different springs to be utilized successively or simultaneously, as may be desired.

AN IMPROVED DYEING MACHINE

A machine designed to thoroughly dye yarns, etc., without breaking or matting them, is illustrated herewith, and has been patented by Mr. Thomas Wolstenholme, of No. 730 Walnut Street, Camden, N. J. The tank containing the dyestuff has a driving shaft at one side, from each end of which extends a crank arm pivotally connected with beams mounted to swing on top of the tank, the inner ends of the beams supporting a yarnstick frame in the tank in such manner that the frame can be easily attached to or detached from the beams. The frame is also adapted to be connected to a support held on a tackle, which may be mounted to travel in a beam extending above the tank, and whereby the operator can raise or lower the frame. The frame is preferably rectangular in shape, and has at its upper end opposite longitudinal beams supporting yarnsticks, which rest in suitable notches, beams being also held to slide vertically in the lower part of the frame and support yarnsticks, the latter beams being held adjustably by pins passed through apertures in the side beams, as shown in Fig. 2. The frame, filled with strands of yarn, is moved over and let down into the tank, when it is connected with the beams, and the driving shaft imparts to it an up and down swinging motion, whereby all parts of the yarn are thoroughly dyed, the yarn being held on



WOLSTENHOLME'S DYEING MACHINE.

the locked sticks in an even position, which prevents breaking and matting of the strands.

Thirteen-mile Guns.

Two monster Russian guns were sent recently to Sebastopol, says the London Times, for the purpose of being placed in the new ironclad Sinope, and although some of the details must be inaccurate, the official description is too interesting to be ignored. They are 12 inch pieces, weighing 50 tons, and throwing projectiles of nearly half a ton. The powder charge is 270 pounds, and the initial velocity 3,000 meters, while the distance of the cannons' ranges is said to be 20 versts, or over 13 miles. As a consequence, the fire of the guns can only be directed by the map, the object fired at being out of sight. Two men, however, suffice for each gun, as they are worked by hydraulic machinery.

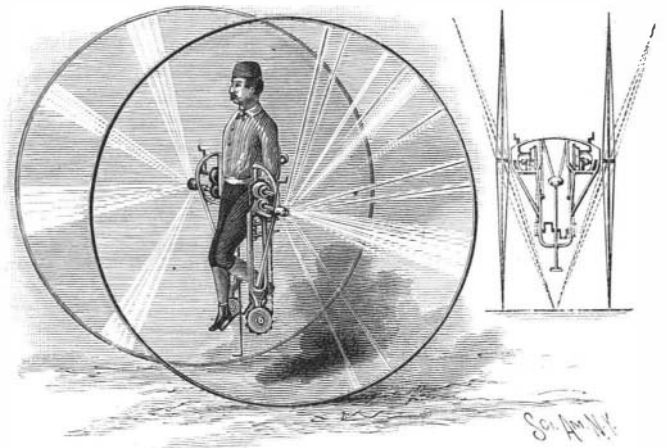
Tidal Action in the Flow of a Gas Well.

A strange phenomenon is reported in connection with the natural gas supply at Montpelier, Ind. For six hours, it is said, the flow declines in pressure to a minimum, then rising for six hours to a maximum throughout the day. The movement is constant as the ocean tides; but whether or not the same influences are the cause is a matter of conjecture, as no comparisons of time and tide, nor the exact variation in pressure, have as yet been made. The amount of variation as yet known is derived from the

operation of the main valve, which is nearly closed at the maximum and wide open at the minimum, in order to preserve a constant supply pressure.

AN IMPROVED VELOCIPÈDE.

The accompanying illustration represents a vehicle with means for inclining the wheels at the pleasure of the rider, so that the lower parts of each wheel may be

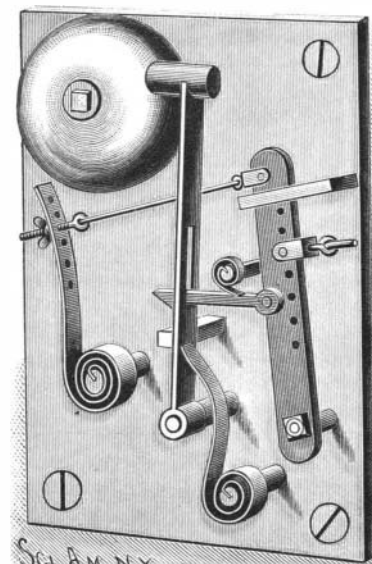


BOWEN'S VELOCIPÈDE.

moved inward to run on a narrow path, the machine also having a brake and means for steering. It has been patented by Mr. Richard E. Bowen, of St. James City, Lee County, Fla. The frame has a bow top, with loop brackets extending downward, from which are converging arms, to a bottom cross piece of which is fixed a straight bar also fixed to the under side of the seat. A rod bent to form a double reverse crank treadle is journaled in the sides of the frame, each end of the rod having a sprocket wheel with chains for rotating a shaft journaled in a sleeve bearing and sliding block of the frame, and also carrying a friction wheel. The main wheels are fixed on two short shafts connected by a universal joint, and journaled in sliding blocks, said shafts each carrying a friction wheel, operated by the friction wheel connected with the crank treadle. By screwing down a threaded rod upon the sliding block, the main wheels are inclined as shown in the sectional view, the wheels returning to their normal position when the screws are raised. The machine is steered by raising one of the friction wheels out of contact with its companion wheel on one side of the machine.

AN IMPROVED SIGNAL BELL.

The accompanying illustration represents an easily adjustable apparatus for striking a signal bell, patented by Mr. Engelbrecht Olsen, of Walkerville, Montana Ter. The bell is secured to a post on the base plate to which the parts are attached, the striking lever being pivoted to the base plate so that its movement will be controlled by a stop and a pressure spring. Just above its pivoted end the striking lever has a slot in which works a trip lever, with a hooked head, this trip lever being held in engagement with the striking lever by a spring, and being itself secured to a lever whose lower end is pivoted to the base plate and whose upper end works in a keeper. A tension rod is adjustably attached to the free end of the latter lever, whereby the weight of the pull cord may be balanced when the device is used for mines and the rope runs down the shaft. The pull cord may be connected directly with the lever to which the trip lever is secured, when the rope runs horizontally, as in case of its use on railroad cars, or such connection may be made by means of an elbow lever placed at the mouth of a shaft, the two levers having perforations set to the same scale for regulating the pull of the tension rod.



OLSEN'S SIGNAL BELL FOR MINES, ETC.