tating swinging door hinged at its upper end and adapted to close the fare aperture, a pair of revoluble drums surrounded by an end-less belt or band, having pockets on its outer surface located below the said fare aperture, ratchet mechanism to effect the movement of the pocketed belt in one direction only, glass deflecting plates to guide the deposited fares to the endless pocketed belt, and a rod connecting the said swinging door with the said ratchet mechanism, whereby in the movement of the said door in depositing a fare, the said endless belt is moved a distance equal to the length of one of the fare pockets, substantially as specified.

### No. 18.980. Vice. (Etau.)

George H. Wood, Springfield, Mass., U.S., 1st April, 1884; 5 years.

George H. Wood, Springfield, Mass., U.S., 1st April, 1884; 5 years. Claim.--1st. In an improved swivel bench-vice, a base plate, a semi-sperical support or ball 2, supported by, and adapted to be re-volved upon, said base plate, and provided with a circumferential groove, a swivel adapted to be contained within and moved along said groove and provided with a transverse hole in its upper end. a vice-jaw whose base is provided with a cavity to receive the upper end of said swivel, and with a transverse hole and a retaining pin to be inserted into said hole in said base and through said swivel, substantially as described. 2nd. In a swivel bench-vice, a base plate, a semi-sperical support or ball 2, adapted to be revolved upon said base plate, a swivel connection between the semi-sperical sup-port and the vice by which the latter is adapted to be adjusted upon said support, and means, substantially as described, for fixing the semi-sphere in adjusted position upon the base, as shown and described. 3rd. In an adjustable vice of the character described, the combination of a supporting semi-sphere having a roughened or cor-rugated surface, a vice-jaw having a concavity to fit said semi-sphere, said concavity having a correspondingly roughened surface, and means, substantially as described, for clamping or binding the two together in adjusted position, as described, the In an adjustable vice, a base plate as 1, a support as 2 adapted to rotate upon said base plate, a hole or series of holes formed partly in the base and partly in the rotating support, and a pin adapted to be inserted in said hole or holes to hold the support in adjusted position upon the base, as shown and described.

#### No. 18,981. Ice Crushing Machine.

(Machine pour Ecraser la Glace.)

J. Yale Fairman, Middletown, Ct., U.S., 1st April, 1884; 5 years. Claim.-Ist. In an ice-crushing machine, a hopper ice-chamber and chute all cast in a single piece, part of the end walls of the ice-chamber being formed integral therewith and having half bearings for the shafts of the crushing mechanism, substantially as described. 2nd. In an ice-crushing machine, the combination, with the hopper, the ice-chamber and chute cast in a single piece and having part of the end walls of the ice-chamber formed therewith, of a supporting frame having a plate which closes the end of said chamber, half bearings being formed in the upper and lower portions to receive the journals of the crushing machine, the combination, with the rectangular arbors, of cutting-teeth arranged thereon, in the manner described. said teeth being formed in pairs projecting in opposite directions, with a central disk having a rectangular opening to receive the arbors, said openings being arranged thereon, as described, 4th. The combination, with the hopper A and ice-chamber B, of the arbors fa and F having cutters I arranged thereon, as described, and the chute C opening in front of the machine, substantially as described, 4th. The combination, with the hopper A, ice-chamber B, and the chute C cast in a single piece with a portion of the end walls at formed therewith, and having half-bearings d, a and lugs b, of the support-ing frame D having plate d! with half-bearings d2 and lugs d3 regis-tering with the like parts upon the upper portion of the structure, substantially as described. J. Yale Fairman, Middletown. Ct., U.S., 1st April, 1884; 5 years.

### No. 18,982. Beer Cooler. (Refroidissoir à Bière.)

Valentin Whilhelmi, Paterson, N.J., U.S., 1st April, 1884; 5 years.

Valentin Whilhelmi, Paterson, N.J., U.S., 1st April, 1884; 5 years. Claim.-1st. The combination of a water-tank, a continuous cool-ing pipe, a circulating pump located in the tank and connected to one end of said cooling pipe, exterior inclosing pipes submerged in the water, tank and supply and discharge pipes to conduct the fermented liquor to and from the exterior pipes, substantially as set forth. 2nd. The combination of a water tank, cooling pipes connected by semi-circular end sections, a circulating pump connected to said cooling pipes, exterior pipes inclosing the cooling pipes and an oscillating agitator, substantially as specified. 3rd. The combination of a water tank, cooling pipes, connected by semi-circular end pipes, a circulat-ing pump connected to said cooling pipes, exterior pipes inclosing the side wall of the tank, and an air-forcing apparatus connected to said air pipe, substantially as set forth.

# No. 18,983. Mixed Paint. (Peinture Mélangée.)

Howard Little, Deckertown, N.J., U.S., 1st April, 1884; 5 years.

Claim .- The improved paint, herein described, consisting of the inredients named in the propertions stated, to wit: -- To five gallens of coal-tar thinned by a light oil, four quarts of finely sifted wood ashes, the ingredients being thoroughly incorporated with each other and adapted for use, substantially as specified.

# No. 18,984. Fork for Hay Tedder.

(Fourche de Faneuse.)

Jacob R. Fry, Jr., Springfield, Ohio, U.S., 1st April, 1884 ; 5 years. (Uain) -1st. In a fork for hay tedders, the combination, with the arm provided with the hinge portion B having lugs b, and the hinge portion A having lugs a alternating with the lugs b, of the spiral spring S having oppositely-extended ends at, bt, and the bolt D passed through the aligned lugs and the spring S, substantially as specified. 2nd. In a fork for hay tedders, the combination, with the times T made of a single piece of material, bent as shown and described, of the recessed hinge portion A, the clamping plate p and the two bolts c, c, arranged substantially as specified.

### No. 18,985. Apparatus for Deoxidizing from Ores. (Appareil pour Déoxyder les Minerais de Fer.)

de Fer.) John Bridgford, Albany, N. Y., U. S., 1st April, 1834: 5 years. Claim.—Ist. A deoxidizing furnace containing a series of vertical reforts, provided with means for separately controlling the discharge of ores from any one or any number of said retorts and hav one series of communicating horizontal heat-chambers, arranged purposes specified. 2nd. In a deoxidizing furnace containing a series of port or all of the contents of any one or any number of said retorts and a series of horizontal heat chambers, arranged one above an other and provided with connecting openings for the passage of heat from one chamber to the one next above i. the said opening being prose specified. 3nd. In a deoxidizing furnace, as and for the prove as herein set forth, a dead air chamber or other heat retarding erries and provided with connecting openings for the passage of heat arrow specified. 3nd. In a deoxidizing furnace containing a series of ore ing the ignition of carbonaceous matter contained in the uppose of perti-ged retorts, and the charging hopper, as herein specified. The dead air chamber or other heat retarding derive surrounding the upper part of said retorts for the passage of verti-eal retorts and a charging hopper, as herein specified. The terrate surrounding the upper part of said retorts for the purpose of pert ing the ignition of carbonaceous matter contained in the upper part of ore from one or any number of said retorts for the part of of vertical retorts provided with means for controlling the agent of ore from one or any number of said retorts and a graph apated alternately at opposite sides of said furnace for our ing he ignition of carbonaceous matter contained in the upper part of ore from one or any number of said retorts of wertical retorts of vertical retorts provided with means for controlling the agent apated alternately at opposite sides of said furnace for format therein specified. 5h. In a deoxidizing furnace provided with communicating oper-tical charge, class densembers of the means substan

## No. 18,986. Car Axle Lubricator.

Charles P. Holmes, Gouverneur, N. Y., U. S., 1st April, 1894; <sup>5</sup> years.

(Graisseur d'Essieu de Char.) Charles P. Holmes, Gouverneur, N. Y., U.S., 1st April, 1834; 5 Chaim.-Ist. The combination, with the journal C and journal-bar A of the two chairs D, D, placed side by side crosswise in the bettor of the box and connected on the sides facing or impinging L. M. J. and rollers L. The combination, with the journal C and journal-bar A of the two chairs D, D, placed side by side crosswise in the bettor of the box and connected on the sides facing or impinging L. M. J. and rollers L. The combination, with the journal cost chairs b, D, each pair of rollers provided with a feed chain separate chairs D, D, each pair of rollers provided with a feed chair which the rollers are respectively mounted, substantially as and for the purpose set forth. 3rd. The chairs E, of rectangular maps or the purpose set forth. 4th. The vielding roller-bearings on purpose shown and set forth. 4th. The vielding roller-bearings on purpose shown and set forth. 4th. The vielding roller-bearings on purpose shown and set forth. 4th. The vielding roller-bearings on purpose shown and set forth. 6th. The combination of the parallel arms H, H, spring-coils I and leave set pring-coils, substantially as and for the purpose shown and set forth. A t, and yielding roller-bearings consisting of the parallel arms and adviet of fit the nothed seat of the chairs b, having seatts arms and the purpose shown and set forth. 6th. The combination of and roles adviet of fit the nothed seat of the chairs when and deviat the suppose shown and set forth. 6th. The combination of the spring-coils and provided with the suppose shown and set forth. 6th. The combination of the spring scale arms and be an and the purpose shown and set forth. 6th. The combination of the spring when and set of the chairs when and dest arms and the purpose shown and set forth. 6th. The combination of the spring coils or loops of and beam and adving the purpose shown and set forth. 6th. The combination of the purpose shown and specified w

### No. 18,987. Paint Distributer.

John P. Whipple, Milwaukee, Wis., U. S., 1st April, 1831; 5 years. Claim.—1st. The combination of the wind wheel, the needle operating arm provided with the eye, the pitman connected to the wind wheel the potential and a provided at its other and the operating arm at one end, and provided at its other and the operating arm at one end, and provided at its other and the operating arm at one end, and provided at its other and the operating arm provided the tay of the appendix of the operating arm provided at its other and the operating arm provided at its other and the operating arm passed through the eye of with an enlarged end for securing the pitman for connecting the needle provided with the eye of and the pitman for connecting the needle arm with the eye of the wheel, the needle operating arm provided with the eye of and the operating arm, substantially as described. 4th, The combination of the needle bescribed. 5th. The combination of the needle arm, and the needle having an eye, and connecting with the eye of operating arm, and the needle having an eye, and connecting with a substantially as described. John P. Whipple, Milwaukee, Wis., U. S., 1st April, 1834; 5 years. Claim.-1st. The combinetion