by the falling either of a signal rod, such as D, or of a weighted rod, such as c^2, connected therewith, substantially as and for the purposes specified. 3rd. In an automatic signalling target, the combination, with a target made in sections, such as A, A^1, A^2, and A^3, of a number of oscillating bell-crank levers, such as B, B^1, either provided with lugs, such a b^2, on their rearmost extremities, or else having rods, such as b^2, the whole being so arranged that, upon a bullet striking one of said target sections, a hooked retaining bar or catch, such as C, will be operated, either through the medium of the lug, or else of the connecting rod hereinbefore mentioned, substantially as and for the purpose specified. 4th. In an automatic signalling target, the combination, with a number of pivoted bars, such as D, carrying suitably constructed signals, of a number of pivoted hooked retaining bars or catches, such as C, arranged to hook over or engage with the upper end of said signal bars, and so arranged as to release said signal bars when the target is struck by a bullet, substantially as and for the purposes specified. 5th. In an automatic signalling target, the combination, with a series of pivoted signal bars, such as D, each having a downwardly projecting arm or extension, such as d, of a pair of bell-crank levers, such as f^1, f^2, and f^1, f^{2*}, connected together by a rod, such as f^6, and both connected to a retaining pawl, such as f^4, adapted to engage with a notched disc or wheel, such as f^5, in order to provide for the release of the signal reversing devices, substantially as herein described. 6th. In an automatic signalling target, the combination, with a pair of rocking levers, such as h^2, of a pair of crank arms, such as h^5, connected together at their ends by a bar, such as h^6, and so arranged as to return any released signal bars to their normal positions, substantially as and for the purpose specified. 7th. In an automatic signalling target, the combination, with a weighted vertically sliding bar, such as c^2, connected by a cord or chain passing over a pulley to another vertically sliding bar, such as D, having a suitably constructed signal at its upper end, of a pivoted retaining pawl, such as C, adapted to engage in a notch or tooth cut in said weighted vertically sliding bar, and adapted to be released by the action of a bullet striking the target, substantially as and for the purpose specified. 8th. In an automatic signalling target, the combination, with a vertically sliding signal bar, such as D, provided with projecting pins, such as d^1, as well as with a notch, in which a retaining pawl, such as C, can engage, of a pair of pivoted upwardly projecting fingers, such as C^1, arranged one on either side of said retaining pawl, and adapted to be withdrawn one at a time therewith, substantially as and for the purpose herein specified. 9th. In an automatic signalling target, the combination, with a series of pivoted arms, such as D, carrying signal disks with comparatively large numbers, or other devices on their surface, of a number of other pivoted arms, having similar, but smaller, devices cut out of a solid sheet, so as to be in skeleton form, and therefor adapted to show over the devices on the signal discs just mentioned to indicate a "line" shot, substantially as herein described.

No. 35,062. Pulverizing Mill.

(Moulin à broyer.)

Vietts Lysands Rice, New York, N.Y., U. S. A., 22nd September, 1890; 5 years.

Claim.—1st. In a pulverizing mill, the combination of a chamber for receiving material to be pulverized, a main shaft, a number of rolls, shafts upon which these rolls are mounted, a head connected to the main shaft, and oscillating journal bearings having such relation to the main shaft that, when the rolls are at rest, said rolls will fall away from the wall of the chamber, substantially as specified. 2nd. In a pulverizing mill, the combination of a chamber for receiving material to be pulverized, a roll or rolls arranged to travel around the interior of the same, a shaft or shafts connected with the roll or rolls, and provided each with a spiral flange, and a main shaft revolving the roll shaft or shafts, substantially as specified. 3rd. In a pulverizing mill, the combination of a chamber for receiving material to be pulverized, a roll arranged to travel around the interior of the same, a shaft with which said roll is connected, a main shaft, having a flange which is sustained by the main frame of the machine, and which has a downwardly tapering portion, a sleeve having an upwardly flaring interior surface, fitting the downwardly tapering portion of the main shaft, and an exterior surface fitting a cavity or opening in the said frame, and a lever engaging with the sleeve for adjusting it longitudinally, substantially as specified. 4th. In a pulverizing mill, the combination of a chamber for receiving material to be pulverized, a roll arranged to travel around the interior of the same, a shaft connected with the roll, a main shaft having a downwardly tapering portion and a laterally-extending flange, a frame through which said main shaft passes, and which sustains the flange of the latter, and a sleeve tapering internally to fit the tapering portion of the main shaft, and having a tongued and grooved connection in the cavity of said frame, whereby said sleeve may be removed, and, after being partially rotated, may be reinserted to present its surface more advantageously for wear, substantially as specified. 5th. In a pulverizing mill, the combination of a chamber for receiving material to be pulverized, a roll arranged to travel around the interior of the same, a perforated or reticulated screen rising from the said chamber, a shell surrounding the screen and chamber, a hopper arranged beneath the chamber, and having its upper portion extended beneath the space, which is between the chamber and the said shell, and a spiral flange carried by the roll to convey material to the screen, substantially as specified. 6th. In a pulverizing mill, the combination of a chamber, rolls revolving around the interior of the same, a main shaft, a head carried by the main shaft and oscillating bearings connected with said head, receiving shafts upon which the rolls are mounted, and composed of two parts, the outer of which have shoulders for receiving heads extending from the roll shafts, and the inner of which are longitudinally adjustable relatively to the outer and internally tapered to fit correspondingly tapered portions of the roll shaft, substantially as specified. 7th. In a pulverizing mill, the combination of a chamber, rolls working within the chamber, shafts carrying the rolls, a hollow main shaft, a head carried by the main shaft and having radial cavities, bearings for the roll shafts, having trunnions provided with cavities communicating with the cavities of the head and composed of two sections, the inner of which are adjustable relatively to the outer, and are internally tapered to fit the tapering portions of the roll shafts, substantially as specified. 8th. In a pulverizing mill, the combination of a hollow main shaft vertically arranged, and provided with a flange, a frame having a part sustaining said flange, and a passage for oil from the interior of said shaft to the space between the collar and hub, substantially as specified.

No. 35,063. Vehicle Spring.

(Ressort de voiture.)

Francis L. Perry, Brooklyn, N.Y., U.S.A., 23rd September, 1890; 5 years.

Claim.—1st. The combination, with a vehicle body, of a W-shaped spring attached at the several bends thereof to said body, and running gear, to which the outer ends of the spring are connected, substantially as set forth. 2nd. The combination, with the body and running gear, of a W-shaped spring attached to the body at the bends, and having pintles on its outer ends, and two-part boxes secured to the running gear, and means for retaining the pintles in the boxes, substantially as set forth. 3rd. The combination, with a body and running gear, of a W-shaped spring attached to the body at the bends, and having pintles at the outer ends, and two-part bearing boxes, between which the pintles are supported, said boxes having ribs therein, which enter corresponding recess in the pintles, to prevent endwise movement, substantially as set forth. 4th. The combination, with a body, a rear axle and front cross-bar or axle, of a pair of W-shaped springs attached to the body at the bends, and to the axle or cross-bar at the ends, substantially as set forth. 5th. The combination, with a body and axle, of a W-shaped spring attached to the body at the bends, and having boxes secured diagonally to the axle, and adapted to receive and form bearings for the outer ends of the spring, substantially as set forth.

No. 35,064. Car Coupling. *(Attelage de chars.)*

Henry Marshall, Lincoln, Nebraska, U.S.A., 23rd September, 1890; 5 years.

Claim.—1st. In a car coupling, the combination, with the draw head having a slot in its front end, which is enlarged on the interior of the draw head and provided with an inclined bottom, of a pin moving vertically through the draw head, and having a shoulder moving through the enlargement of said slot, and a ball in said enlargement, substantially as described. 2nd. In a car coupling, the combination, with the draw head having a slot in its front end, which is enlarged on the interior of the draw head, and provided with an inclined bottom, and the jaw pivoted in said draw head and having a foot extending into said slot, the latter being struck on a curve around the pivot of the jaw, of a ball in said enlargement of greater diameter than the thickness of the foot, and a pin moving vertically through the draw head in rear of the enlargement, and having a shoulder extending into the enlargement, the whole adapted to operate, substantially as described. 3rd. In a car coupling, the combination, with a draw head, a jaw pivoted therein, and having a rearwardly extending foot, and a pin having a shoulder adapted to drop in front of said foot, of an enlargement at the lower end of said pin, and a cranked rod mounted in eyes on the end of the car body and standing below said enlargement, and at right angles thereto, as and for the purpose set forth. 4th. In a car coupling, the combination, with the draw-head, having perforated ears at its sides, of draft-boxes engaging said ears, pins passing through the perforations therein, and removably securing the boxes, and rods connecting the boxes with those at the other end of the car-body, substantially as described.

No. 35,065. Gate Hinge. *(Penture de barrière.)*

Gabriel Rohrbach, Del Rio, Texas, U. S. A., 23rd September, 1890; 5 years.

Claim.—1st. A gate hinge, consisting of two angled plates, one member being provided with a pintle and the other member with a series of apertures adapted to receive said pintle, substantially as shown and described. 2nd. A gate hinge, consisting of the angled plates B^1 and B^2, provided with the strengthening ribs c, the plate B^1, having its horizontal portion provided with the pintle b, and the plate B^2, having its horizontal portion of greater length than the horizontal portion of the plate B^1, and provided with the series of apertures a, substantially as shown and described.

No. 35,066. Gate Latch. *(Loquet de barrière.)*

Gabriel Rohrbach, Del Rio, Texas, U. S. A., 23rd September, 1890; 5 years.

Claim.—1st. A gate latch, comprising a slotted sleeve, a pivoted and spring-actuated latch plate and a bolt mounted to turn in the latch plate, and extending through the sleeve, and provided with a transverse pin, substantially as shown and described. 2nd. A catch for a gate latch, consisting of a plate bent to form two aligning recesses, divided by a partition, two opposite inclines and two wings for attachment to a post, substantially as shown and described. 3rd. In a gate latch, the combination, with a base plate and a slotted sleeve carried by the base plate, of a spring-actuated latch plate, pivoted on the base plate, a bolt held to turn in the base plate, and extending through the sleeve, a transverse pin in the bolt, and means for turning the bolt, substantially as shown and described.

No. 35,067. Lathing. *(Lattis.)*

Lauren Sylvester Scott, Bristol, Vermont, U.S.A., 23rd September, 1890; 5 years.

Claim.—1st. A lathing fabric, composed of parallel wooden strips, arranged in proper position to be nailed in place, and sewed to-