ject; second, placing two pointers or arms K^1 L^1, moving over arcs G^1, H^1, of conducting material, located at a distant station and similarly disposed with reference to a base line at the same angle as said arms K, L, and thereby establishing an electrical balance in each of two circuits, one circuit including the arcs G, G^1, arms K, K^1, a battery and an indicating apparatus, the other circuit, including the arcs H^1, H^1, arms L, L^1, a battery and an indicating apparatus; third, noting the point of intersection of the lines of direction of the arms K^1, L^1, on a chart *a*, *b*, *c*, *d*, representing the area including the position of said distant object on a reduced scale; fourth, determining on said chart the distance and bearing of said point of intersection from said predetermined point; fifth, signalling to the said predetermined point the said bearing and distance. 4th. The apparatus for finding the position of a distant object with reference to a predetermined point and indicating the same at said point, substantially as hereinbefore described and operated, and arranged as follows, to wit: first, by determining the position of said object; second, marking said position on a chart or map, representing on a reduced scale an area, including the position of said object; third, directing a pivoted index or pointer to point to said marked position, the said pointer moving over and making contact with an arc of conducting material: fourth, moving an index or pointer, located at said predetermined point, and traversing a similar arc of conducting material until an electrical balance is attained in a circuit including said arcs, a battery and an indicating apparatus:

No. 33,565. Machine for Stapling Books and Pamphlets. (*Machine à brocher les livres et brochures au fil de fer.*)

John F. Daggett, Chicago, Ill., U.S., 4th February, 1890; 5 years.

Claim.—1st. In a wire stapling machine, the combination of a revolving shaft, a reciprocating former and driver cams on said shaft in direct engagement with the former and driver, and a work supporting table below said former and driver, substantially as described. 2nd. In a wire stapling machine, the combination of a revolving shaft, a reciprocating former and driver cams on said shaft in direct engagement with said former and driver, and an adjustable work supporting table below said former and driver, substantially as described. 3rd. In a wire stapling machine, the combination of a revolving shaft, cams on said shaft, a former and driver respectively actuated by said cams, and a wire feed actuated by one of said cams, substantially as described. 4th. The actuating cams and shaft thereof, in combination with a former and driver projecting between and engaging said cams, substantially as described. 5th. The combination, with the cutter, a support therefor, and a pivoted connection between said cutter and support, of an adjustable screw rod for bodily moving the cutter back and forth to adapt it for cutting wire of different lengths, substantially as described, 6th. The clinching jaws and the levers pivoted together and supporting said jaws, in combination with a pivoted connection between said jaws and levers, substantially as described. 7th. The table, the clinching jaws and levers pivoted thereto and to each other, in combination with means, substantially as described, for adjusting said jaws and table, substantially as described. 8th. The levers K and the clinching jaws thereof, in combination with the rock shaft, and a blade on said shaft projecting between said levers, and means, substantially as described, for rocking said shaft and oscillating the plate, substantially as described.

No. 33,566. Frame for Velocipedes. (*Bâti de vélocipède.*)

John B. Dunlop, Belfast, Ireland, 4th February, 1890; 5 years.

Claim.—1st. In the construction of frames for safety bicycles and other cycles, the employment of flexible flat bars preferably of spring steel for reducing vibration, substantially as set forth. 2nd. In the construction of frames for safety bicycles and other cycles, the combination of the bifurcated or duplicated horizontal flexible metallic flat bars S,S, vertical flexible metallic supports S^1, S^{11} and horizontal flexible metallic flat bars S^{11}, S^{11}, for connecting the handle bar socket or steering post H, with the front fork, substantially as herein described and shown and for the purposes specified.

No. 33,567. Ironing Board. (*Planche à repasser.*)

William Walters, Findlay, Ohio, U. S., 4th February, 1890; 5 years.

Claim.—1st. In an ironing board, the board having depending lugs, the legs having the casting pivoted in said lugs, the eccentric carried by said legs, the legs pivoted to the first-named legs, having rack and cross bar against which the eccentric bears, and the hanger having the pawl for engaging the rack in said legs, substantially as shown and described. 2nd. In an ironing board, the combination of the board, having the racks d^1, the legs C having the rack plates c^1 secured thereon, the arm D carrying a plate *d*, engaging the racks d^1 on the board, the hangers c^3 depending from the board having a pawl c^2, for engaging the rack plate c^1 on the legs C, the legs B pivoted to the legs C, and the eccentric c^5, carried by legs B, for engaging the rod c^6 on legs C, all of said parts being arranged, as shown, and operating in the manner and for the purpose described.

No. 33,568. Manufacture of Ornamental Plates of Metal or other Malleable Sheets. (*Fabrication des plaques et autres feuilles métallique d'ornement.*)

César F. Josz, Brussels, Belgium, 4th February, 1890; 5 years.

Claim.—1st. The herein described method of ornamenting plates by grounding or frosting parts thereof, printing thereon and varnishing and drying the plates, substantially as described. 2nd. The herein described method of embossing ornamental plates by pressing them between a die and a matrix, prepared substantially as herein described. 3rd. As articles of commerce, plates of metal or other malleable material, ornamented in the manner described.

No. 33,569. Electric Signalling Apparatus. (*Appareil électrique à signaux*)

George F. Milliken, Boston, Mass., U.S., 4th February, 1890; 5 years.

Claim—1st. A municipal or other electric alarm system, comprising a main electric circuit, a main battery and a response-signal magnet, both normally disconnected from the said circuit, and a key or switch adapted to be manually operated and thereby to introduce successively the battery and magnet into the said main circuit, a normally open shunt circuit of the same battery, including the said magnet, and also its armature and back stop or vibratory contacts, all at the alarm-sending station, and a clock mechanism, an electro-magnet controlling and adapted when energized to release the same, and a circuit breaking device actuated by the said mechanism, both electro-magnet and circuit-breaking device being included in the said main circuit, all at a second or alarm-receiving station, whereby the magnet of the response signal at the home station may be constantly energized by the battery current in the main circuit when the signal is sent, and intermittingly energized and caused to give the response signal by inclusion together with its armature and vibratory points in the shunt circuit upon the automatic operation of the distant circuit-breaker by means of the clock mechanism at the alarm-receiving station, substantially as hereinbefore described. 2nd. In an auxiliary fire alarm telegraph system, the combination, with a main circuit, a signal-transmitting device acting to introduce a battery into the said circuit, and an electro-magnet in a fire alarm box at a distant station, said magnet being adapted when energized to trip the mechanism of said box, of a response or return signal comprising an electro-magnet introduced into the main circuit by the act of sending the signal, a spring armature and back contact therefor normally out of contact with one another, and a normally open shunt circuit of the main battery controlled by the said armature and back contact, and including the said magnet, and an automatic circuit-breaker in the main circuit operated by the box mechanism when tripped, and acting to break the said main circuit through the response magnet, whereby the armature thereof is allowed to rebound upon its back contact and thereby to close the shunt circuit and to give a vibratory signal, substantially as described. 3rd. A main electric circuit, a battery and an electro magnet normally disconnected therefrom, and an armature for the said magnet, which armature, when at rest, is out of contact with its back stop, a normally open shunt or local circuit through the said armature and its back stop or contact, and adapted, when closed, to include also the electro-magnet and battery, a circuit-closing switch or key arranged to include the said battery and electro-magnet in the main circuit and to close the same, causing the magnet to be energized and to attract its armature, and an independent and automatic circuit breaker to open the said main circuit for the purpose of allowing the armature to rebound beyond its point of rest, and to make contact with its back stop and vibrate thereon, thus directing an intermittent or vibratory current through the shunt circuit and an electro-magnet, and producing a continuous signal, substantially as hereinbefore described. 4th. A fire-alarm box, provided with a keyless self-locking door or cover, and an aperture covered with a plate of easily fractured material, substantially as and for the purposes set forth. 5th. In a fire-alarm box, the combination of the box with a keyless self-locking door or cover, having an aperture covered with a plate of easily fractured material, substantially as and for the purposes set forth. 6th. A fire alarm box, provided with a keyless self-locking door or cover, the means for locking and unlocking being upon the inside of the said box and door or cover, and an aperture covered with a plate of easily fractured material, substantially as and for the purposes set forth. 7th. In a fire-alarm box, the combination of the box with a keyless self-locking door or cover, the means for locking and unlocking being upon the inside of the said box, and door or cover having an aperture covered with a plate of easily fractured material, substantially as and for the purpose set forth. 8th. In a fire-alarm box, the combination of the box with a removable keyless self-locking door or cover, the means for locking and unlocking being upon the inside of the said box and door or cover, and an aperture covered with a plate of easily fractured material, substantially as and for the purposes set forth.

No. 33,570. Baling Press. (*Presse d'emballage.*)

Peter K. Dederick, Loudonville, N. Y., U. S., 4th February, 1890; 5 years.

Claim.—1st. In combination with a baling press, the double cam casting H, H, with the cam S, slide D, traverser E, as and for the purpose set forth. 2nd. In combination with a baling press, castings P, P, rods Y, as and for the purpose set forth. 3rd. In combination with a baling press, I claim band casting O. 4th. In combination with a baling press, I claim pipe C, in combination with clamp castings F, as set forth. 5th. In combination with a baling press, feed blade T, lever U and guide bar *g h*, and curved lever W, connected as described as and for the purpose set forth. 6th. In combination with a baling press, the roller S with folding blade *m*, as and for the purpose set forth. 7th. In combination with a baling press, traverser E, pipe D, and joint K, as and for the purpose set forth. 8th. In combination with a baling press, the pipe connection between the press and power end of machine, as and for the purpose set forth. 9th. In combination with a baling press, the combination, with the press and power ends of the machine, of the pipe connection between them and the inner slide staff for communicating the power, substantially as and for the purpose set forth. 10th. In combination with a baling press in which the pressing and power ends of the machine are connected by means of supporting timbers, beam or pipe, and the power communicated by means of a staff or other slide device, I claim the said connection and slide in combination, when operated in within or through each other, as and for the purpose set forth.

No. 33,571. Adjustable Mirror. (*Psyché*)

Frank M. Chapman, New York, N. Y., U. S., 4th February, 1890; 5 years.