

die bars and dies mounted upon the bed plate, and a lever engaging with the main cam and operating to close said dies, a pair of pointing die bars and dies alongside the grasping dies and similarly operated, and means as described, whereby the pointing dies may be given a lateral movement against the grasping dies, substantially as set forth. 2nd. The combination, with the main shaft and the cam G secured thereon, of the levers pivoted between standards mounted upon the bed plate and actuated as to their rear ends by said cam, the grasping die bars and dies arranged beneath one of the levers and operating in a vertical direction only, the pointing die bars and dies arranged beneath the other lever and both opening vertically and adapted to swing laterally, the links through which power is transmitted from the levers to the die bars, and means as for instance, a toggle joint follower and cam for imparting to the pointing die bars their lateral movement, substantially as set forth. 3rd. The combination with the bed of the machine of the pointing and spring operated grasping die bars and dies arranged thereon, the pivoted and spring opened pointing die bars and dies, the post journaled in the bed plate to which the pointing dies are pivoted and the spring-actuated bar whereby the dies and post are normally controlled as to their position, the cam-actuated pivoted levers, the links interposed between the latter and the die bars, the supporting link arranged within the bed plate and the block toggle lever follower and cam, whereby the dies enclosed longitudinally of the wire, substantially as set forth. 4th. The combination, with the main shaft of the feeding mechanism, composed of the following elements: the face cam on the main shaft, the pivoted and transversely oscillating lever operated by said cam, and spring-actuated against the same, the grasping lever fulcrumed to the last-named lever and carried thereby, and the cam on the main shaft whereby the grasping lever is caused to act, substantially as specified. 5th. The combination with the bed plate of the grasping die bars pivoted at their rear ends and adapted to open vertically the pointing die bars, also pivoted at their rear ends, the post journaled in the bed plate to which the bars last named are secured, the spring-actuated bar attached to and operating the post, means as described, whereby both pairs of dies may be closed vertically, and additional means whereby the pointing die bars may be closed against the grasping die bars, substantially as specified. 6th. The combination in a wire nail machine, of a pair of standards mounted upon the bed, a pair of pivoted grasping die bars, and dies, and a pair of pointing die bars and dies arranged between the standards, levers fulcrumed to the standards and adapted to close the die bars vertically together, a cam whereby the levers are caused to operate, and means as described, whereby the two pairs of dies may be closed laterally together for the squeezing of the nail head, substantially as specified. 7th. The combination of the pair of grasping die bars arranged upon the bed plate and adapted to open vertically the pair of pointing die bars arranged beside the grasping die bars, the spring-actuated post journaled in the bed plate, and to which the pointing die bars are secured, the standards and the levers pivoted to said standards, whereby both pairs of dies are closed, and the toggle joint follower and cam on the main shaft whereby the pointing die bars are swung upon their post against the grasping die bars, substantially as set forth. 8th. The combination with the grasping and pointing dies, and the means whereby they are actuated, of the vertically reciprocating trimmer, the block against which it acts, the pivoted lever whereby it is carried, and the roller on the main shaft whereby the movement is imparted to the lever, substantially as set forth. 9th. The combination with the bed plate, of the standards mounted thereon, the grasping and pointing die bars, and their levers arranged between the standards and the cam on the main shaft engaging the levers, the means whereby lateral movement is communicated to the pointing die bars, the laterally reciprocating and cam-actuated feed lever, and the grasping lever fulcrumed at the side thereof, the trimmer arranged in ways at the side of one of the standards, the lever whereby it is reciprocated, and the block against which said trimmer cuts and the cam and roller on the main shaft, whereby the feeding and trimming devices are operated, all arranged as described and for the purpose set forth.

No. 25,177. Locomotive Safety Ash Pan.

(Cendrier de Locomotive de Sécurité.)

Edgar F. Vaughn, Topeka, Ks., U.S., 22nd October, 1886; 5 years.

Claim.—1st. An ash-pan for a furnace, having a bracing frame, the longitudinal vertical sides and internal inclined sides forming chutes and having air-circulating spaces, substantially as described. 2nd. An ash pan for a furnace, having a bracing frame, chuting sides, air circulating spaces between these sides and the outer walls, and a dumping or tilting bottom, as described. 3rd. The combination, in a furnace ash-pan, of the rigid top frame, the vertical side walls inclined at their ends, as described, the chute boards, a tilting bottom, and the reticulated spark arrester at the ends of the pan, substantially as described. 4th. The combination, with an ash-pan for a furnace, of the means described for dumping the ashes and hinged reticulated dampers, substantially as and for the purposes specified. 5th. The combination of articulating dampers, having reticulated angular walls, with an ash-pan constructed substantially as described. 6th. An ash pan or pit, adapted for locomotive or stationary furnaces, provided at one end with cinder-breaking bars, substantially as described. 7th. An ash-pan adapted for furnaces, having at one end cinder-breaking bars and a reticulated wall, substantially as described. 8th. An ash-pan adapted for locomotive or stationary furnaces, provided at one end with cinder-breaking bars and a reticulated spark arrester, in combination with spray pipes inside of the pan, substantially as described. 9th. The combination in an ash-pan, of a spray pipe for extinguishing incandescent cinders, with reticulated spark-arresting walls and hinged dampers, substantially as described. 10th. The combination in an ash-box or pan, of tilting bottoms provided with slotted plates and the rocking bar provided with forks which enter the slots in said plates, and operate by oscillating the bar to open and shut said bottoms, substantially as described. 11th. An ash-pan, having the exterior vertical sides, the inclined or chute interior sides, a hinged inner diaphragm of wire netting in the rear of the hopper or chute, the tilting bottom, reduc-

lated ends and hinged dampers provided with articulating aprons, substantially as described. 12th. The combination in an ash-pan, of the elide walls bevelled at their ends, the rectangular frame, the internal inclined walls, leaving air-circulating spaces, a tilting bottom, a cinder-breaker at the end of the pan and a hinged damper, substantially as described.

No. 25,178. Prisoptometer. (Prisoptomètre.)

Howard Culbertson, Zanesville, Ohio, U. S., 22nd October, 1886; 5 years.

Claim.—1st. The combination of a prism holder, a prism or prisms arranged in the holder with a terminal edge of the prismatic face or faces in the central line of sight through the said prism or prisms, and an object circle arranged concentrically in the line of sight, substantially as herein specified and for the purpose set forth. 2nd. The combination of a sustaining disk or frame, a prism holder adapted to be rotated on its axis in the said disk or frame, a prism or prisms arranged in the holder with a terminal edge of the prismatic face or faces in the central line of sight through the said prism or prisms, coincident with the axis of the holder, and an object circle arranged concentrically in the central line of sight, and with the axis of the holder, substantially as and for the purpose herein set forth. 3rd. The combination of a supporting disk or frame, provided with the degree marks upon its face, a tension holder adapted to be rotated on its axis in the said frame or disk, a prism or prisms arranged in the holder with a terminal edge of the prismatic face or faces in the central line of sight through the said prism or prisms coincident with the axis of the holder, and an object circle arranged concentrically in the central line of sight and with the axis of the holder substantially as and for the purpose herein set forth. 4th. The combination of a supporting frame or disk, a prism-holder adapted to be rotated on its axis in the said disk or frame, a prism or prisms arranged in the holder with a terminal edge of the prismatic face or faces in the central line of sight through the said prism or prisms, coincident with the axis of the holder, and a lens-holder attached to the disk or frame in front of the prism or prisms, and with its axis coincident with the axis of the prism-holder, substantially as and for the purpose herein set forth.

No. 25,179. Wash Basin or Similar Vessels.

(Cuvette de Toilette ou Utensile Semblable.)

Emily A. Stears, Brooklyn, N. Y., U. S., 22nd October, 1886; 5 years.

Claim.—1st. The combination with the auxiliary basin E, provided with the lug *n*, of the threaded sleeve *p* provided with the angled arms *a* and the internally threaded cap *F* fitted to the sleeve *p*, substantially as specified. 2nd. The combination with a basin A, of the bushing C, collar *c*, provided with a pin *h*, the valve D, perforated sleeve *d* and collar *c*, provided with a hook *f*, substantially as described. 3rd. As an improved article of manufacture, a basin valve consisting of the bushing C, provided with the collar or flange *d*, and the threaded collar *c* carrying the pin *h*, the valve D, perforated sleeve *d* attached thereby and fitted to the bushing C and the collar *c* provided with a hook *f*, all combined and arranged as herein described.

No. 25,180. Dry Dock. (Bassin de Radoub.)

James E. Simpson, Jr., and Alfred H. Simpson, Brooklyn, N. Y., U.S., 22nd October, 1886; 5 years.

Claim.—1st. A dry dock, wherein the bottom and sides are constructed of the rows of bottom bearing piles *A*, cut off level with the bottom of the excavation, the longitudinal timbers C laid on and firmly secured to said piles, the cross-timbers *F* laid on and firmly secured to the timbers C, the string-pieces *E* laid on and firmly secured to the cross-timbers *F*, the inclined timbers *B*, arranged as shown, the exterior rows of brace-piles *A* supporting the timbers *F*, the altars *D* laid on the timbers *F* and secured thereto, and the concrete bed *B* carried up to the tops of the timbers C and *F*, substantially as set forth. 2nd. The bottom of a dry dock, composed of the concrete bed laid on the soil or natural bottom and the timbers C embedded in and resting on said concrete, and provided with anchors *a*, *a*, secured to the said timbers and having flanges or toes which take into the concrete, substantially as described. 3rd. A bottom for a dry dock, composed of the longitudinal timbers C laid with intervening spaces and having anchors *a*, *a*, constructed substantially as shown and extending downward from said timbers and the concrete *B*, arranged as shown, between and under said timbers and embedding the anchors, substantially as set forth. 4th. As a means for relieving the bottom of a dry dock from external hydrostatic pressure, said bottom provided with tubes which extend down through it to the natural soil below and said tubes provided with valves as described. 5th. The combination to form an overflow valve for the bottom of a dry dock of the tube *c* open to receive water at its lower end, and the valve *d* provided with a stem *d* having a weighted bulbous portion *d* near the valve and a suitable packing *e*, all constructed and arranged as set forth. 6th. The combination in a dry dock, of the concrete bed *B* laid upon the natural soil, the longitudinal timbers C embedded in the said concrete and provided with anchors *a*, *a*, which extend down into the concrete, the cross-beams *F* secured to said timbers C and the planking *G* laid with open joints and secured to said beams *F*, substantially as herein set forth. 7th. The combination with the longitudinal timbers C, the cross-beams *F*, the string-pieces *E*, the inclined timbers *B*, and the altars *D*, all constructed and arranged substantially as set forth, of the concrete bed *B* filled into the angle of the excavation and up to the level of the upper faces of the timbers C and *F*, substantially as herein set forth. 8th. The concrete filling *B* of the bottom and sides of the dock formed with sloping or inclined surfaces at *x*, *x*, as shown, and having longitudinal channels *L*, *L*, formed in its upper surface, substantially as and for the purposes set forth.