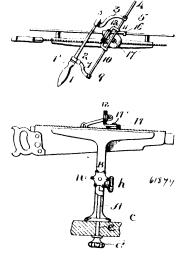
cushion extending outward from said packing to relieve the strain upon the sleeve in securing the sleeve upon the pipe, and a lead upon the sleeve in securing the sleeve upon the pipe, and a lead packing about said cushion and packing, said cushion serving to form a stop for the lead packing around the sleeve joint, substantially as described. 37th. The combination of a sleeve, a tie-plate, cutting mechanism carried by said plate, and an interchangeable reducing ring adjustably secured upon said sleeve, substantially as described. 38th. The combination of a sleeve, a significant said the strength of the strength of the secured upon said sleeve, as substantiary as described. Some Intercombination of a sieeve, a tie-plate, and tie-rods jointedly engaged with the tie-plate, said tie-rods adjustably engageable with said sleeve, substantially as described. 39th. The combination of a sleeve, a cutter, a support therefor, an independent non-rotatable feed screw to feed port therefor, an independent non-rotatable reed screw to feed the cutter, a pressure bar engaging said feed screw and adjustably connected with said support, whereby the pressure bar may be accommodated to various lengths of sleeves, substantially as described. 40th. The combination of a cutter, a support therefor, means to rotate said cutter, a feed screw to advance the cutter, a pressure bar carying the feed screw and adjustably consected with said support an automatic during the actuate the feed nected with said support, an automatic device to actuate the feed screw and telescoping sleeves carrying the automatic device, substantially as described. 41st. The combination of a cutter, an adjustable pressure bar, an independent non-rotatable feed screw to advance said cutter housed in said pressure bar, and means to feed the screw, substantially as described. 42nd. The combination of a cutter spindle, a removable pressure bar, an independent non-rotatable feed screw rigidly held from turning in said pressure bar to advance said spindle, and means to reciprocate the feed screw, substantially as described. 43rd. The combination of a cutter, driving mechanism to actuate the cutter, an independent non-rotatable feed screw, a driving nut to actuate the feed screw, and adjustable automatic devices to actuate said nut whereby the feeding of the screw may be regulated, substantially as described. 44th. The combination of a a sleeve and reducing ring, a tie plate secured to the reducing ring, packing between the tie plate and ring, a head secured to the tie plate, packing between the head and the tie plate, and drilling mechanism carried by said head, substantially as described. 45th. The combination of a pipe, a sleeve engagable upon the pipe, an inner compressible packing between the sleeve and pipe to act as a water packing and also as a cushion to remedy any uneveness between the sleeve and the pipe, means to engage the sleeve upon the pipe, and on the sides and edges of the compressible packing, the compressible packing receiving the water pressure and relieving the lead packing therefrom, substantially as described.

No. 61,879. Saw Filing Device. (Appareil à limer les seies.)



Jacob W. Haddock and J. Edward Haddock, assignees of Robert Francis Foss, Laconia, New Hampshire, U.S.A., 1st December, 1898; 6 years. (Filed 20th October, 1898.)

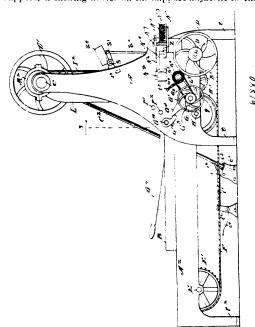
Claim. - In a saw sharpening machine, the combination with the ctaim.—In a saw smarring machine, the combination with the supporting standard, of the clamping-device hinged thereto and provided with the guide-bar p, carriage 16, to slide upon said bar, disc 13 pivoted to said slide, disc 12 having guides 10 and 11, and pivoted to said disc 13, and the file carrier adapted to be slidably converted in the guides substantially as shown and described. supported in the guides, substantially as shown and described.

No. 61,880. Box Blank Making Machine.

(Machine pour la fabrication de blanc pour boites.)

William P. Healy, assignee of Frederick Peter Rosback, both of

and strengthening strip longitudinally through the machine, a movable support, a tacking device on the support adjacent to the path



of the strengthening strip, means for actuating the tacking-device to drive fasteners, and means for moving the tacking-device with the strip and sheet while the fasteners are being driven, substantially as and for the purpose set forth. 2nd. In a machine fastening a strengthening strip to a sheet, the combination of feed-mechanism for advancing the sheet and strip longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the strip, means for actuating the tacking-device to drive fasteners, means for moving the tacking-device with the strip and sheet while the fasteners are being driven, and fastener supplying mechanism for the tacking device operated by said movement of the tacking-device, substantially as and for the purpose set forth. 3rd. In a machine for forming blanks by tacking a sheet and strengthening strips to reinforcing cleats, the combination of guides for the cleats, feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet and strengthening strips through the machine, a fastener driving device adjacent to the path through the machine, a tastener driving device adjacent to the path of each strengthening strip, operating to fasten the strip and sheet, by successive operations, to the cleats, means for guiding the strengthening strips with the sheet and cleats across the fastener driving devices, and relative skipping means actuated by the said driving devices, and relative skipping means actuated by the said feed-mechanism, and operating, at predetermined intervals, in the passage of the sheet and cleats through the machine to prevent a single fastener driving operation of the fastener driving devices, and thereby produce an increase of the distance between points of tacking, substantially as described. 4th. In a machine for fastening a strengthening strip to a sheet, the combination of feed-mechanism for advancing the sheet and strip longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the strip, means for actuating the tackingdevice to drive fasteners, means for moving the tacking-device with the strip and sheet while the fasteners are being driven, fast-ener applying mechanism for the tacking-device operated by said movement of the tacking-device, and skipper mechanism operating, relative to the feed-mechanism to withhold movement of the tacking-device at stated intervals, whereby no fasteners will be driven thereby, substantially as and for the purfasteners will be driven thereby, substantiary as and for the purpore set forth. 5th. In a machine for fastening a sheet to a cleat, the combination of a feed-mechanism for advancing the sheet and cleat longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the sheet, means for actuating the tacking-device to drive fasteners, and means for moving the tacking device with the sheet and cleat while the fasteners are being driven, substantially as and for the purpose set forth. 6th. In a machine for fastening a sheet to a cleat, the combination of feed-mechanism for advancing the sheet and cleat longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the sheet, means for actuating the tacking device to drive fasteners, means for moving the tacking device with the sheet and cleat while the fasteners are being driven, and fastener supplying mechanism for the tacking-device operated William P. Healy, assignee of Frederick Peter Rosback, both of Chicago, Illinois, U.S.A., 1st December, 1898; 6 years.

9th August, 1898.)

Claim.—1st. In a machine for fastening a strengthening strip to a sheet, the combination of feed-mechanism for advancing the sheet and cleat longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the sheet, means for