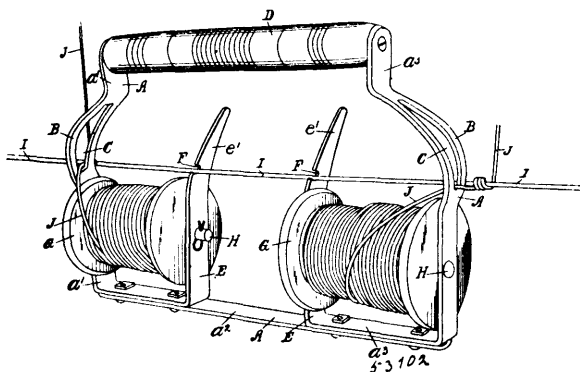


No. 53,102. Fence Weaving Machine.

(Machine à tisser.)

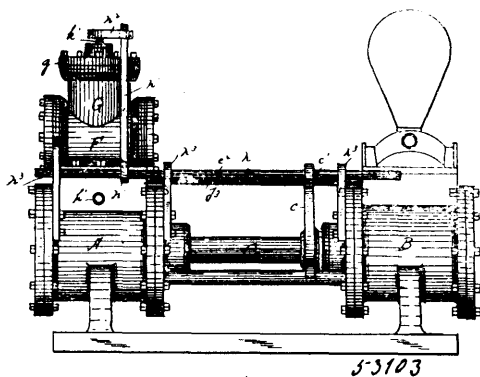


Henry Withey, Lucan, Ontario, Canada, 4th August, 1896; 6 years. (Filed 11th May, 1896.)

Claim. - 1st. A frame A, formed with a swell or projection B, and with an opening C, and a handle D, in combination with the spool G, and means for supporting the latter, and standards E, E, formed with the bevelled or inclined ends e^1 , and with a notch or recess F, substantially as and for the purpose set forth. 2nd. A frame A, formed with the projections B, B, and with the openings C, C, and a handle D, in combination with spools G, G, and means for supporting the latter, and standards E, E, formed with the bevelled or inclined end e^1 , and with a notch or recess F, substantially as and for the purpose set forth. 3rd. A frame A, formed in three sections a^1 , a^2 , and a^3 , and the sections a^1 , and a^3 , each formed with the swell or projection B, and with an opening C, and a handle D, in combination with the spools G, G, and means for supporting the latter, and the standards E, E, formed with the bevelled or inclined end e^1 , and with a notch or recess F, substantially as and for the purpose set forth.

No. 53,103. Valve for Steam Pumps.

(Soupape pour pompes à vapeur.)



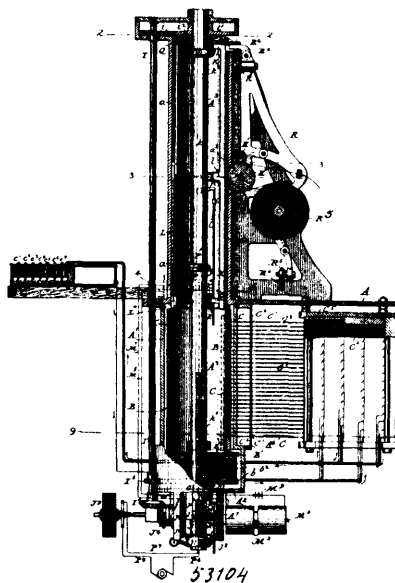
John L. McGiffin, Scottdale, Pennsylvania, U.S.A., 4th August,
1896; 6 years. (Filed 15th July, 1896.)

Claim.—1st. The combination with a steam cylinder, of a main slide valve controlling the ports thereof, a primary tappet valve operated by tappet connections from the piston rod, and an auxiliary piston operating the main slide valve, the steam inlet communicating with the primary tappet valve chamber which controls the flow to the auxiliary piston, and the auxiliary piston controlling the ports of the main valve chamber, substantially as set forth. 2nd. The combination with a steam cylinder, of a main slide valve controlling the ports thereof, a primary tappet valve operated by tappet connections from the piston rod, and an auxiliary piston moving the main slide valve, and a single steam inlet opening into the primary valve chamber, said auxiliary piston having solid piston heads and being operated from ports controlled by the primary valve and said piston heads controlling the ports to the main valve chamber, substantially set forth. 3rd. The combination with a main cylinder A having the piston *a*, the piston rod C carrying the tappet arm *c*, a rotary reciprocating tappet valve *k* operated by connections from the tappet arm, and mounted in the valve chamber G, with which the steam supply communicates, ports *m*, *m*¹ leading therefrom to the auxiliary piston cylinder, which has ports *p*, *p*¹, communicating with the slide valve chamber, the auxiliary piston valve *f* mounted in the chamber F and having solid piston heads, the main slide valve *d* in the main valve chamber, and moved by the auxiliary piston, and controlling the main cylinder ports *a*¹, *a*², substantially as set forth.

4th. The combination of the valve chamber G having ports leading therefrom to the chamber F, and having the steam supply port *h* and cushioning port *h*², rotary reciprocating valve *k* mounted in the said chamber and having the valve faces *l*, *l*¹ controlling the ports *h*, *h*², and mechanism for moving said valve *k*, substantially as set forth.

5th. The combination of a steam cylinder A, piston rod C having the tappet arm *e*, valve chamber G having the rotary reciprocating valve *k* mounted therein and provided with a valve stem extending through the cap of the valve chamber, tappet bar *n* having tappets thereon with which tappet arm *e* engages, the bar *n*¹ and the lever *n*² connected to the valve stem, substantially as set forth.

No. 53,104. Linotype Machine. (*Machine linotype.*)



The Stenotype Co., of Portland, Maine, assignee of Charles Elmer Allen, of Washington, D.C., all of the U.S.A., 4th August, 1896. (Filed 22nd June, 1896.)

Claim. 1st. In character-selecting and aligning devices, the combination of a revolving pin-holder, movable pins in said holder, and a series of longitudinally-movable type-bars adapted to be engaged by the pins in the pin-holder to align said type-bars, as set forth. 2nd. The combination of a series of movable type-bars, a multiplicity of series of type-bar stops, keys and connections for shifting said stops, and means whereby the type-bars are brought into contact with sets of projected stops in some of the series, while stops in the remaining series are being shifted in readiness to properly shift type-bars, and means whereby the said stops are returned to normal position after they have shifted the type-bars, as set forth. 3rd. The combination of a multiple series of vertical and horizontal rows of type-bar stops or shifters moving in an endless path, means for projecting stops in each series located at one side of their path, and means for returning the stops to normal position before they again pass the projecting devices, as set forth. 4th. In a character-selecting machine, revolvable selecting devices, means for placing said devices in selecting position, in combination with a rotating and reciprocating type-holder, means to reciprocate said holder to cause the type thereon to contact with the predetermined selecting devices to align the types, as set forth. 5th. In a character-selecting device, the combination of a revolvable cylinder having type-selecting devices around the same, with a rotating and reciprocating segmental type-holder having a series of adjustable types thereon, the selecting devices being adapted to be continuously operated, whereby, while one set of selected devices are being operated to position and align the types, another set may be in the process of selection, as set forth. 6th. A bank of electro-magnets consisting of a number of holders or casings having magnetic cores therein arranged in sets of two or more, the said casings being so positioned with reference to each other that the magnetic cores therein will lie one behind the other in such manner as to convert the joint magnetic pull of corresponding magnets into a mechanical thrust, as set forth. 7th. Two or more electro-magnets arranged in tandem and provided with armatures and hollow cores, the said armatures having stems secured thereto of greater length than the hollow cores of the magnets, the said magnets being so positioned with reference to each other that the end of the stem projecting from the hollow core of one magnet will be thrust against the armature of the magnet preceding for the purpose of converting the magnetic pull of the magnets, in tandem, into one mechanical thrust, as set forth. 8th. An escapement consisting of a wheel or