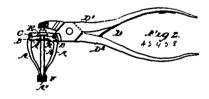
contact points between which said lever vibrates and means for causing the electrical contact to occur at either of said contact points, substantially as and for the purpose set forth. 10th. In an engraving machine, a work table and copy slide moving on a fixed engraving machine, a work table and copy slide moving on a fixed bad, a lever adapted to give synchronous movements of a fixed ratio to said table and slide, a chuck on said table, said chuck having work holding pins adapted to be acrewed below the surface, a copy holding clamp on said copy slide, said clamp being operated by a right and left hand screw. 11th. In an electrical engraving machine controlled by the vibration of a tracing toint bassing over a copy, a copy consisting of a series of a tracing point passing over a copy, a copy consisting of a series of movable type, and a clamp for said type, said clamp consisting of jaws operated by a right and left hand screw, and supported in a jaws operated by a right and lett man screw, and supposes to a block having a bevelled lip adapted to project over the counters of said type. 12th. In an engraving machine, a work table and a copy slide on a fixed bed, an adjustable hand lever for giving the said side on a fixed bed, an adjustable hand lever for giving the said table and slide synchronous and parallel movements in the same direction of any desired ratio, a tool slide and a tracing slide having movements at right angles to said first movements, a lever mounted on an adjustable pivot for giving the said tool slide and tracing synchronous and parallel movements in opposite directions of any desired ratio, an electrically operated tool mounted on the tool slide and supported above the work table, a tracing point mounted on the and supported above the work table, a tracing point mounted on the trucing slide and held over a copy on the copy slide, and means substantially as described, whereby vibrations of the tracing point in passing over the copy will cause corresponding vibrations of the tool in passing over the work held upon the work table. 13th. In an electrically operated engraving machine adapted to reproduce on a work table the copy held upon a copy slide, devices consisting of adjustable levers for changing the scale of the reproduction as compared to the copy in regard to length or breadth, or both, and an electric connection adapted to be shifted to either of two contact points between which a lever vibrates for enabling the operator to points between which a lever vibrates, for enabling the operator to produce either relief or intaglio engraving from a single copy. 14th. In an electrically operated inachine adapted to make an engraved reproduction of a copy, independent adjustable levers for adjusting the length of the reproduction independently of the breadth and the breadth independently of the length, and means for shifting the electrical connections to either of two contact points between which electrical connections to either or two contact points between which a tracting lever vibrates so as to make the reproduction either in relief or intaglio, as desired from a single copy, substantially as described. 15th. In an engraving machine, a work table and copy slide having synchronous and parallel movements in the same direction in a horizontal plane, a tool slide and a tracing slide having synchronous and parallel movements in the opposite direction and also in a horizontal plane, an engraving tool and a tracing so also in a horizontal plane, an engraving tool and a tracing point mounted upon their respective slides and having synchronous and parallel movements in a vertical plane, and means for causing said last mentioned movements to be either in the same or in the opposite directions, substantially as and for the purpose set forth.

## No. 45,458. Surgical Instrument.

(Instrument de chirurgie.)



Alonzo Cooper Kellogg, Portage, Wisconsin, U.S.A., 3rd March.

Claim.—1st. In a surgical instrument, the combination with a support, of pivoted prongs adapted to close at their free ends to receive an elastic band, and means for moving the prongs outward, substantially as described. 2nd. A surgical instrument, comprising a pair of tongs, a series of prongs pivoted on one of the members of the said tongs, and a button held on the other member and connected with the said tongs, to other the other member and connected with the said tongs. the said tongs, and a button held on the other member and connected with the said prongs to open and close the same, substantially as described. 3rd. A surgical instrument, comprising a pair of spring pressed tongs, a ring projecting from the free end of one of the members of the said tongs, a series of prongs pivoted on said ring, each prong having an inwardly extending arm, and a button connected with the said prong arms and pivoted on the other member of the said pair of tongs, substantially as shown and described.

## No. 45,459. Tiles, Bricks. &c.

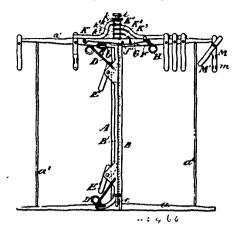
(Tuiles, briques, etc.)

William Duxbury, London, England, 3rd March, 1894; 6 years.

Claim.—Glass-faced tiles, bricks, mouldings and other building forms consisting of glass upon which is cast mortar made of brick or slate dust or other suitable powdered waste material mixed with lime, substantially as set forth.

## No. 45,460. Turner for Music Leaves.

(Tourne-feuille de musique.)

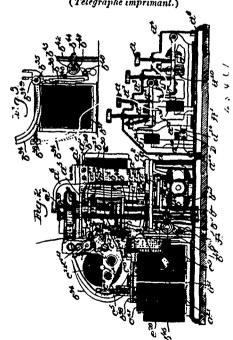


Thomas Douglas, New York, State of New York, U.S.A., 3rd March, 1894; 6 years.

Claim. -1st. The music leaf turner, comprising a supporting Claim.—1st. The music lear turner, comprising a supporting frame, means for securing the music leaves as a whole to the frame, spring actuated leaf turning arms located at the top of the frame, each provided with means for attaching its free end to the edge of the leaf, escapement mechanism located at the top of the frame and the leaf, escapement mechanism located at the top of the frame and comprising a pivoted lever and a pivoted dog connected to move together and a controlling spring common to the two, for releasing the arms one at a time, and an operating rod extending from the pivoted lever to the foot of the frame for operating the escapement, substantially as set forth. 2nd. The music leaf turner, comprising a supporting frame, clamping jaws for holding the back of the music secured to the frame, one of the jaws being movable toward and away from the other and the opposite jaw, being under-cut, springs for actuating the movable jaw toward the other, a cam lever for forcing the movable jaw and locking it away from the other, leaf turning arms secured to the frame, an arm operating rod located within the arms secured to the frame, an arm operating rod located within the said under-cut jaw and means for actuating the rod, substantially as set forth,

## No. 45,461. Printing Telegraph.

(Télégraphe imprimant.)



Albert David Neal, of Boston, and Howard French Eaton, of Quincy, both of Massachusetts, U.S.A., 3rd March, 1894; 6 years.

-1st. In an electro-mechanical typewriting apparatus, a movable character or type carrier, electro-magnets to positively