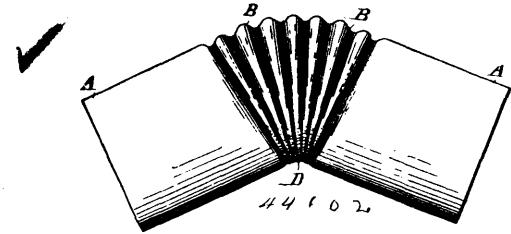


scribed. 2nd. In a recording apparatus, the combination of a key having a prong or other projection and movable along a stem or other guide, a tape and inking ribbon, and a type carried by a pivoted lever, the said lever being connected to a pivoted lever actuated by the key, substantially as shown and for the purpose described. 3rd. In a recording apparatus, the combination of a key having a prong or other projection and movable along a stem and connected to a plate carrying a tape and inking ribbon, a spring for returning the said plate and ring, a clock dial, and a type carried by a pivoted lever, the said lever being connected to a pivoted lever actuated by the key, substantially as shown and for the purpose described. 4th. In a recording apparatus, the combination of a key having a prong or other projection and a pivoted lever, which is normally held in one position by a spring, the said lever being adjustably connected to a pivoted lever actuated by the lever, substantially as shown and for the purpose described. 5th. In a recording apparatus, the combination, severally, with a series of keys, each key having a prong or prongs and movable along a central stem or other guide, of a ring or other shoulder piece preferably surrounding and movable along the stem, the said ring being connected to a plate carrying across its face a tape and inking ribbon, a clock dial having hands actuated by ordinary clockwork, a spring for returning the said plate and ring, a fixed tube or sleeve surrounding and concentric with the stem and ring, the said tube having longitudinal slots corresponding respectively to a series of pivoted levers movable at one end along the said slots and adjustably connected to a corresponding series of levers carrying types or marks and adjustably connected to a fixed part of the apparatus, substantially as shown and for the purposes described. 6th. In a recording apparatus, the combination of mechanism for moving longitudinally the tape and inking ribbon, comprising respectively the plate *t*, having oppositely projecting arms *z*, *z*<sup>1</sup>, carrying rollers *a*<sup>1</sup> and intermediate pins *b*<sup>1</sup>, pin *r*, engaging ratchet lever *q*<sup>2</sup>, having pawl *q*<sup>1</sup>, ratchet wheel *p*<sup>1</sup>, spur wheel *f*<sup>2</sup> and pinion *f*<sup>1</sup> for actuating the rollers *c*<sup>1</sup>, of tape *u*, pin *w*<sup>1</sup>, engaging ratchet lever *v*, and having pawl *r*<sup>2</sup>, and ratchet wheel *u*<sup>1</sup> for actuating the rollers *s*<sup>1</sup>, of inking ribbon *v*, substantially as shown and described.

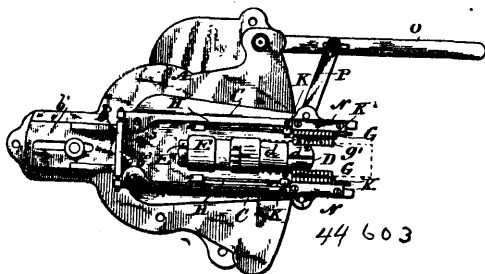
**No. 44,602. Pipe Elbow. (Coude de tuyau.)**



Orville H. Lawrence, Waverly, New York, U.S.A., 2nd November, 1893; 6 years.

*Claim.*—1st. A sheet metal elbow, formed from a tube having corrugations and bent into final shape by compressing the corrugations upon one side thereof, substantially as described. 2nd. A sheet metal elbow, provided with circumferential corrugations, the said corrugations compressed together to form the throat of the elbow, substantially as described.

**No. 44,603. Pipe Bending Machine. (Machine à plier les tuyaux.)**



Orville H. Lawrence and Ellsworth M. Letts, both of Waverly, New York, U.S.A., 2nd November, 1893; 6 years.

*Claim.*—1st. In a machine for bending corrugated pipe, comprising a stationary or staking or bending tool on which the pipe to be bent is placed, a set of wings movable towards said tool, a set of gripping fingers on each wing to grip the corrugations of said pipe, a lever mechanism to move said wings, in combination with a hand staking to bend the pipe while held on the staking tool, substantially as described. 2nd. A machine for bending corrugated pipe, comprising a stationary staking or bending tool on which the pipe to be

bent is placed, a set of wings movable towards said tool, a set of gripping fingers on each wing to grip the corrugations of said pipe, a lever mechanism to move said wings and fingers against the pipe, and a spring to automatically throw open said wings, substantially as described. 3rd. In combination, with the wings and bed plate, the levers connected with said wings to close them, a latch to hold them closed, a sliding or angle bar to release said latch, and a spring connected to said levers to throw them in the opposite direction and open the wings, substantially as described. 4th. The wings, in combination with an adjustable and extensible standard *B*, provided with a plate to which said wings are hinged, and levers to operate said wings, substantially as described. 5th. The slotted tapering gripping fingers adapted to engage the corrugations of a pipe, in combination with supports for said fingers, and mechanism for moving said supports and fingers towards and on to the pipe to be gripped, substantially as described. 6th. The gripping fingers, formed and adapted to engage in corrugations in the pipe with lower ends coming collectively together, and in combination with a lifting bar and a spring to automatically operate it, the supporting wings and a lever, substantially as described. 7th. The combination of the gripping fingers, lifting bar and side supporting wings, said fingers attached to the lifting bars and having a sliding and oscillating movement on said supporting wings, substantially as described. 8th. The staking tool *D*, provided with a collar *d*, for holding the pipe on said tool, a set screw on said collar to tighten the same, a curved end to insert in the pipe, said end provided with a curved rib, and a shoulder *d*<sup>2</sup>, on said tool, substantially as described.

**No. 44,604. Aniline Black Discharge. (Noir d'aniline d'enlevage.)**

William T. Whitehead, of Magog, Quebec, Canada, and Henry D. Dupee, Boston, Mass., U.S.A., 2nd November, 1893; 6 years.

*Claim.*—1st. The herein described process of producing cloth having patterns on aniline black ground, which consists in treating the cloth with a solution of aniline black colour, drying sufficiently to keep the colour from running, and printing the pattern thereon in a discharge containing zinc as its essential or active element, before oxidation of the aniline colour, substantially as described. 2nd. The herein described process of producing cloth having coloured patterns on aniline black grounds, which consists in treating the cloth with a solution of aniline black colour, drying sufficiently to keep the colour from running, and printing the pattern thereon in a discharge containing a zinc compound as its essential or active element, before oxidation of the aniline black colour, substantially as described. 3rd. The herein described process of producing cloth having patterns on aniline black grounds, which consists in treating the cloth with a solution of aniline black colour, drying sufficiently to keep the colour from running, and printing the pattern thereon in a discharge containing a zinc compound as its essential or active element, and a colour, before oxidation of the aniline black colour, substantially as described. 4th. The herein described process of producing cloth having coloured patterns on aniline black grounds, which consists in treating the cloth with a solution of aniline black colour, drying sufficiently to keep the colour from running, and printing the pattern thereon in a discharge containing a zinc compound as its essential or active element, and a colour, before oxidation of the aniline black colour, substantially as described.

**No. 44,605. Aniline Black Resist. (Noir d'aniline de réseavage.)**

William T. Whitehead, Magog, Quebec, Canada, and Henry D. Dupee, Boston, Massachusetts, 2nd November, 1893; 6 years.

*Claim.*—1st. In the herein described process of producing cloth having patterns on aniline black grounds, printing the pattern upon the cloth in a resist containing zinc as its essential or active element, suitably drying the cloth, and thereafter treating the cloth with a solution of aniline black by blotching, slop padding, or dyeing, substantially as described. 2nd. In the herein described process of producing cloth having coloured patterns on aniline black grounds, printing the pattern upon the cloth in a resist containing zinc as its essential or active element, and a colour, suitably drying the cloth, and thereafter treating the cloth with a solution of aniline black by blotching, slop padding or dyeing, substantially as described. 3rd. In the herein described process of producing cloth having patterns on aniline black grounds, printing the pattern upon the cloth in a resist containing a zinc compound as its essential or active element, suitably drying the cloth, and thereafter treating the cloth with a solution of aniline black by blotching, slop padding, or dyeing, substantially as described. 4th. In the herein described process of producing cloth having coloured patterns on aniline black grounds, printing the pattern upon the cloth in a resist containing a zinc compound as its essential or active element, and a colour, suitably drying the cloth, and thereafter treating the cloth with a solution of aniline black by blotching, slop padding or dyeing, substantially as described.