ducing a rotary magnetic field, a compound coil and a simple coil suitably spaced on a ring or drum core, the compound coil having two members in parallel relation to the supply circuit differentially wound and in the same inductive relation to the core, and containing respectively inductance and capacity to produce the required phase displacement of magnetomotive force relatively to that produced by the simple coil. 9th. As a means of producing a rotary magnetic field, a compound coil and a simple coil suitably spaced on a ring or drum core and connected in series relation, the compound coil comprising two members in parallel relation differentially wound and in the same inductive relation to the core and containing respectively inductance and capacity to produce a displacement of phase of magnetomotive force to correspond to the angular displacement on its core. 10th. As a means of producing a rotary magnetic field, a compound coil and a simple coil spaced ninety degrees apart on a ring or drum core and connected in series relation, the compound coil comprising two members in parallel relation differentially wound and in the same inductive relation to the core, and containing respectively inductance and capacity to produce a phase displacement of magnetomotive force of ninety degrees with reference to the simple coil.

No. 53,090. Counter for Envelope Machines.

(*Compteur pour machines à enveloppes.*)

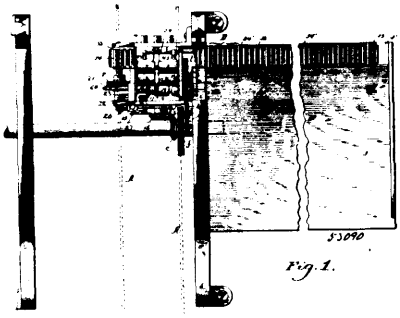

Fig. 1.

Fig 1

Henry Buckley Cooley, John Madison Noble and James Edward Trevor, all of Hartford, Connecticut, U.S.A., 3rd August, 1896; 6 years. (Filed 16th June, 1896.)

Claim.—1st. In an envelope or analogous machine, the combination of a chain composed of a series of sections adapted to receive the envelopes as they are discharged from the machine, mechanism for moving said chain, and mechanism controlled by the envelopes as they are discharged from the machine to cause the chain to move one section at a time when a predetermined number of envelopes has been received by said section, substantially as specified. 2nd. In an envelope or analogous machine, the combination with mechanism for receiving the envelopes from the machine, and mechanism for placing said envelopes upon a chain, of a chain composed of a series of sections, and means controlled by the envelopes for moving said chain one section at a time intermittently when a predetermined number of envelopes has been placed thereon, substantially as described. 3rd. The combination with an envelope or analogous machine, of a chain composed of a series of sections, mechanism for receiving envelopes from the machine and discharging the same downwardly, mechanism operating across the path of the envelopes for pushing the said envelopes one at a time upon a section of the chain, and means for moving said chain a section at a time when a predetermined number of envelopes has been placed upon said section, substantially as described. 4th. The combination with an envelope or analogous machine, of receiving rolls between which the envelopes are passed, a counter train normally out of gear with said rolls, mechanism for automatically throwing said train in gear with the rolls when an envelope passes between them, a chain comprising a series of sections adapted to receive the envelopes, and mechanism between the chain and the receiving rolls for pushing the envelopes one at a time upon the sections of said chain, with mechanism controlled by the counter train to cause the chain to move one section at a time as a predetermined number of enveloped is placed on said section, substantially as described. 5th. The combination with an envelope or analogous machine, of the main driving shaft, the receiving rolls through which the envelopes are passed downwardly from the machine, connections between said driving shaft and rolls for continuously rotating the same, a counter train normally at rest, connections between the receiving rolls and counter train adapted to be put in operation by the envelope as it passes through the rolls, whereby the counter train is operated to count each time an envelope passes between the rolls, substantially as described. 6th. In an envelope or analogous machine, the combination with a chain and mechanism for automatically moving said chain step by step when a predetermined number of envelopes has been placed thereon, of the receiving rolls journalled in bearings below the delivery of the machine, a shaft journalled in bearing adjacent thereto, connections between the main driving shaft and receiving rolls for continuously rotating the same, a bevelled gear loosely mounted on said shaft, pawl mechanism carried by the shaft of one of the receiving rolls normally holding said gear against rotation, a locking device between the gear and its shaft, and means for causing said locking device to lock the gear and shaft together as an envelope passes between the receiving rolls, a counter train, and connections between said counter train and gear, whereby the said counter train may be caused to count each envelope as it passes between the rolls, substantially as described. 7th. In an envelope or analogous machine, the combination with the main frame, of a supplemental frame attached thereto below the delivery of the machine, of the receiving rolls mounted in said supplemental frame, connections between the driving shaft and said receiving rolls for continuously rotating the same, a shaft journalled in said supplemental frame adjacent to the receiving rolls in gear therewith, a clutch roll fixed to said shaft, a bevel gear loosely mounted on the shaft with its hub in contact with the clutch roll and provided with a groove therein, a stop pin or shoulder in said groove, a recess in the clutch roll, a spring-actuated plunger in said recess having its outer end travelling in the groove in the face of the hub of the gear, a pawl journalled upon a shaft of one of the receiving rolls and projecting slightly beyond the line of contact of the two receiving rolls and normally engaging a tooth on the gear to hold it against rotation, means for disengaging said pawl from the gear and holding it out of engagement therewith as the envelope passes between the rolls, so that the spring-actuated plunger may engage and remain in contact with the pin or shoulder of the groove of said gear thereby locking the gear and clutch roll together, a counter train, connections between said counter train and gear whereby the former is caused to move each time an envelope passes between the rolls, substantially as described. 8th. In a counter for envelopes or analogous machines, the combination with the receiving rolls through which the envelopes pass, of a clutch roll mounted on a shaft adjacent to said rolls and rotating continuously therewith, an interrupted flange on said roll forming a land, a cam projecting upon the roll between the ends of the land having its upper surface in line with the upper surface of the land, a spring-actuated plunger in the body of the roll with its end projecting beyond the face thereof, a pawl fulcrumed upon the shaft of the receiving roll adjacent to the clutch roll with one end projecting slightly beyond the line of contact between the two receiving rolls, a gear loosely mounted upon the same shaft with the clutch roll, normally held against rotation by said pawl, a tappet projecting from the pawl in the path of the ends of the land and cam on the clutch roll, a groove in the face of the hub of the gear with a shoulder or stop therein, in which groove the end of the plunger travels in the rotation of the roll, said stop pushing the plunger into its recess when the gear is held against rotation and locking the gear and roll together when the gear is released by the pawl, substantially as described. 9th. In a counter for envelopes or analogous machines, the combination with the receiving rolls between which the envelopes pass, of a shaft adjacent to one of the rolls, a clutch roll fixed to said shaft, a gear loosely mounted on said shaft with its hub in contact with the clutch roll, a pawl mounted on the shaft of one of the receiving rolls with one end projecting slightly beyond the line of contact of said rolls and normally holding the gear against rotation, a cam on the clutch roll for raising the pawl to throw its end out of line with the envelope as it enters between the receiving rolls and permitting the pawl to drop until its end engages the envelope after it has cleared the edge thereof, thus holding the said pawl out of engagement with the gear, means for locking the clutch roll and gear together in the further rotation of the roll, whereby the gear is caused to make one revolution as the envelope passes between the receiving rolls, and means for raising the pawl out of contact with the envelope to clear the edge thereof as it drops from the receiving rolls and to cause the pawl to engage the gear and to lock the same against rotation when the envelope is passed from the receiving rolls, substantially as described. 10th. The combination with an envelope or analogous machine, of the receiving rolls between which the envelopes are passed, a counter train normally out of action, mechanism directly controlled by the passage of the envelopes between the receiving rolls for connecting the said rolls with the counter train, whereby a count is made only when an envelope is passed between the rolls, substantially as described. 11th. The combination with an envelope or analogous machine, of the receiving rolls, each consisting of two parts with a space between said parts, a pawl fulcrumed upon the shaft of one roll within the space between its two parts, and having one end projecting within the space between the two parts of the other roll and beyond the line of contact between the rolls, a counter train, clutch mechanism between said train and the receiving rolls, normally held out of action by the pawl and thrown into action by passage of an envelope between the receiving rolls, substantially as described. 12th. The combination with an envelope or analogous machine, of the receiving rolls, a clutch roll adjacent to a bevel gear loosely mounted upon the same shaft with said clutch roll, mechanism for locking the said gear and clutch roll together as an envelope passes between the receiving rolls, a counter train comprising a series of gears intermittently intermeshed with the clutch roll by the said bevel gear, and springs bearing upon the driven gears of the counter train to bind them against their bearings, whereby said driven gears may be prevented from moving more than one tooth at a time, substantially as described. 13th. The combination with an envelope or analogous machine, of the receiving rolls, connections between said rolls and a rotating part of the machine, a clutch roll mounted on a shaft adja-