with the master, a cutter indexing mechanism connected to said holder, a radially movable projection connected with the indexing mechanism, and a stationary V-notch for engagement with said projection. 26th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, indexing mechanism connected to said holder, a radially movable projection connected with the indexing mechanism, and two stops forming between them a V-notch for engagement with said projection and adjustable upon a fixed support. 27th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to the holder and having a series of notches, an arm secured frictionally to said holder, a radially movable latch carried by said arm to engage said notches and having a laterally projecting pin, and a stationary V-notch for engagement with said projecting pin. 28th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to the holder, an actuator for said indexing wheel, and means to shift said actuator to cause it to engage different points on said wheel, offset circumferentially whereby the thickness of the cutter is compensated for in working upon opposite sides of the gear teeth. 19th. A machine for cutting gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to the holder and having two sets of teeth or projections offset circumferentially, a plunger having a pin or projection to engage one or the other of said sets of teeth, means to reciprocate said plunger, and means to oscillate said plunger in one direction or the other, to bring its pin or projection into engagement with one or the other of said sets of teeth. 30th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to the holder and having two sets of teeth or projections offset circumferentially, a plunger having a pin or projection to engage one or the other of said sets of teeth, a cam and connections to oscillate said plunger in one direction or the other to bring its pin or projection into engagement with one or the other of said sets of teeth, and means to reciprocate said plunger. 31st. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, and means to swing said carrier about said intersecting axis. 32nd. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, and a cam and intermediate connections to swing said carrier about said intersecting axis. 33rd. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, independent sets of devices to swing said carrier about its axis in opposite directions, and means to engage either of said sets of devices with said carrier. 34th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link to engage said carrier, a cam and operative connections between said link and cam, and means to engage and disengage said link with and from said carrier. 35th. A machine for cutting bevel gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link to engage said carrier, a cam and operative connections between said link and cam, a hand wheel, and a link connecting the first named link with the hand wheel. 36th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, independent sets of devices to swing said carrier about its axis in opposite directions, a hand wheel, and links connecting opposite sides of said hand wheel, with said independent sets of devices respectively. 37th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis of the holder, a stationary guide for contact with the master, a cutter, a link having a slot to engage the carrier and a plunger pin in one side thereof and means to actuate said link to swing the carrier, and means to engage and disengage said link with and from said carrier. 38th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link having a tapering slot to engage a correspondingly shaped part of the carrier, means to engage and disengage said link with and from said carrier. 39th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder movable in a direction substantially perpendicular to the axis of the holder to bring the blank into operative relation with the cutter, a cutter, and means to move said carrier. 40th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder movable in a direction substantially perpendicular to the axis of the holder to bring the blank into operative relation with the cutter, a cutter, and a cam against the periphery of which said carrier rests. 41st. A machine for cutting gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder movable in a direction substantially perpendicular to the axis of the holder to bring the blank into operative relation with the cutter, a cutter, a cam, and an adjustable step bearing for said carrier upon said cam. 42nd. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder movable in a direction substantially perpendicular to the axis of the holder to bring the blank into operative relation with the cutter, a cutter, a cam, a roller carrying block to bear upon said cam and having a thrust bearing for said carrier, and a guide to prevent rotative movement of said block. 43rd. A machine for cutting bevel gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master gear into operative relation with the cutter and the guide respectively. 44th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, means to press the master in either direction against the guide, a cutter, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master into operative relation with the cutter and the guide respectively. 45th. A machine for cutting bevel gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier having bearings for said spindle and with which it is movable about an axis intersecting the axis of the spindle, a stationary guide for contact with the master, a cutter, and means to move said carrier in a direction substantially perpendicular to the axis of the spindle to bring the blank and the master into operative relation with the cutter and the guide respectively. 46th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a work controlling weight connected to said holder, a cutter, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master gear into operative relation with the cutter and the guide respectively. 47th. A machine for cutting bevel gear teeth, comprising a holder for the master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, means to swing said carrier about said intersecting axis, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master into operative relation with the cutter and the guide respectively. 48th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cam and intermediate connections to swing said carrier about said intersecting axis, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master into operative relation with the cutter and the guide respectively. 49th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, independent sets of devices to swing said carrier about its axis in opposite directions, means to engage either of said sets of devices with said carrier, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master into operative relation with the cutter and the guide respectively. 50th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link to engage said carrier, a cam and operative connections between said link and cam, means to engage and disengage said link with and from said carrier, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master gear into operative relation with the cutter and the guide respectively. 51st. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, means to swing said carrier