

means for axially moving said transfer wheels while engaged by said total result wheels, for carrying from one of said total result wheels to the total result wheel of the next higher denomination, and means for returning said transfer wheels to their former axial position while not engaged by said total result wheels. 17th. The combination with the listing type wheels, of the total result type wheels, the interposed transfer wheels mounted upon movable supports, means for moving said total result wheels into and out of engagement with said transfer wheels, and means for axially moving any one or more of said transfer wheels for the purpose of carrying from any one of said total result wheels to the total result wheel of the next higher denomination. 18th. The combination, with the listing type wheels, of means for alternately showing sums thereon and returning the same to zero, the total result type wheels and the interposed transfer wheels mounted upon movable supports and adapted to communicate movement to said total result wheels, for the purpose set forth. 19. The combination, with the listing type wheels, of the total result wheels, the interposed transfer wheels mounted upon movable supports, and means for moving said total result type wheels into and out of engagement with said transfer wheels, for the purpose set forth. 20th. The combination, with the listing type wheels and the total result type wheels, of the interposed transfer wheels, movable standards upon which said transfer wheels are mounted, springs engaging standards, locking means for holding said standards in position against the tension of said springs, and means upon upon each of said total result wheels for releasing the next successive transfer wheel as each total result wheel makes a complete revolution, for the purpose set forth. 21st. The combination, with the listing wheels 47, and means for operating said wheels, of the total result wheels 49, the interposed transfer wheels 75, the movable standards in which said transfer wheels are mounted, means for moving said standards and thereby axially moving said transfer wheels, levers 95, for holding said standards and wheels in normal position, and means upon said total result wheels for tripping said levers, for the purpose set forth. 22nd. The combination, with the listing type wheels 47, and means for operating said wheels of the total result wheels 49, the transfer wheels 75, means for moving said total result wheels into and out of engagement with said transfer wheels, movable standards 79, in which said transfer wheels are mounted, springs 99, connected with said standards, locking levers 95, means upon said total result wheels for tripping said locking levers and permitting them to be moved by said said springs, and means for restoring said standards to their normal position, substantially as described. 23rd. The combination, with the movable carriage, of the listing type wheels and the total result type wheels mounted upon said carriage, the interposed transfer wheels, means for moving said total result wheels into engagement with said transfer wheels while said carriage is being moved in one direction means for moving said total result wheels out of engagement with said transfer wheels while said carriage is being moved in the opposite direction, and means for axially moving said transfer wheels while said total result wheels are in engagement with them, and means for restoring said transfer wheels to their normal position while said total result wheels are out of engagement with them, for the purpose set forth. 24th. The combination, with the type wheels and means for operating them, the carriage whereon the same are arranged, the type aligning device adapted to engage the type of said wheels, the movement of said carriage operating said type wheels and moving them into position to be engaged by said aligning device, and means for operating said aligning device, for the purpose set forth. 25th. The combination, with the movable carriage, the listing type wheels and the total result type wheels carried thereby, and means for moving said carriage and thereby bringing either set of wheels into printing position, and an aligning device adapted to engage and align the type of the set of wheels that is brought into printing position. 26th. The combination, with the movable carriage, of the listing type wheels and the total result type wheels carried thereby, an aligning device common to both sets of wheels, and means for moving said carriage so as to bring either set of said type wheels into position to be engaged by said aligning device, for the purpose set forth. 27th. The combination, with the movable carriage, the listing type wheels and the total result wheels carried thereby, of an impression device common to both sets of type wheels, means for moving said carriage into position to bring type on either set of wheels into position to be engaged by said impression device. 28th. The combination, with the movable carriage, type wheels carried thereby, and means for moving said carriage so as to bring said type wheels into printing position, of the slide 197 carrying a plate 199 adapted to cover the type that are in printing position and are not to be printed from, and means for regulating the movement of said slide, for the purpose set forth. 29th. The combination, with the series of type wheels, each provided with a transverse hole 213, of the movable slide 197 carrying the plate 199 and the pin 201 adapted to enter the holes in said type wheels, and means for moving said slide. 30th. The combination, with the type wheels and means for bringing said type wheels into printing position, of the diagonally arranged shaft 141 and the paper carrying and impression rolls operated by said shaft, for the purpose set forth. 31st. The combination, in a computing machine, of the keys and a transmitting mechanism, with the total result type wheels, the carriage, said keys and transmitting mechanism co-operating upon the movement of said carriage to operate said type wheels, and means for restoring said total result type wheels to zero, sub-

stantially as described. 32nd. The combination, with the carriage, of the listing and total result wheels mounted upon said carriage, means for operating said wheels, and means for restoring said total result wheels to zero. 33rd. The combination, with the carriage, of the total result wheels, the shaft 53 upon which said wheels are mounted and revolve, dogs carried by the shaft, adapted to engage projections on said wheels as the shaft is rotated in one direction, means upon said carriage for supporting said shaft, and means adapted to be thrown into engagement with said shaft to rotate it as said carriage is moved, for the purpose set forth. 34th. The combination, of the total result wheels, mounted on a rotatable shaft upon a movable carriage, means causing said wheels to move with the shaft as it is rotated in one direction, a pinion upon said shaft, a rack bar adapted to be moved into and out of path of said pinion, and a key for so moving said rack bar, for the purpose set forth. 35th. The combination, of the type wheels, the tubular shafts to which said wheels are secured, said shafts being arranged one within another, standards 39 and 41 supporting said shaft, and means for rotating said shafts. 36th. The combination, of the type wheels, the tubular shafts upon which said wheels are mounted, said shafts arranged one within another, independent bearings for each shaft, worm wheels upon said shafts, spiral shafts engaging said worm wheels, a movable carriage upon which said tubular shafts and type wheels and said spiral shafts and connections are mounted, and a series of keys adapted to be moved into the paths of said spiral shafts, for the purpose set forth. 37th. The combination, with the movable carriage, the type wheels arranged upon tubular shafts that are mounted one within another upon said carriage, spiral shafts also mounted upon said carriage and engaging worm wheels on said tubular shafts, a keyboard and a series of numbered keys arranged in line with each spiral shaft, and means for moving said carriage. 38th. The combination, in a computing machine, of the keyboard, with the plurality of series of keys thereon, catches for normally holding the keys in an elevated position, a movable carriage, a plurality of transmitting devices therein corresponding to the series of keys, figured wheels coupled with said transmitting devices, said transmitting devices and said wheels being operated upon the movement of the carriage after the keys have been set, and means positively actuated by said carriage for restoring set or depressed keys to their normal position, substantially as described. 39th. The combination, in a computing machine, of the frame, with the keyboard, the plurality of series of keys thereon, the carriage provided within said frame and provided with a plurality of transmitting devices, all movable with and by said carriage, said keys adapted to engage with said transmitting devices, and figured wheels operable by said transmitting devices when said carriage is moved a given distance, substantially as described. 40th. The combination, with the key board, the series of depressible keys, and the movable frame adapted to engage the depressed keys, of the sliding carriage, and means on said carriage to positively engage and move said frame and restore said keys, for the purpose set forth. 41st. The combination with the casing, of the movable carriage mounted therein, the rock shaft mounted in bearings upon said carriage, an operating handle connected with said rock shaft, a crank arm connected with said rock shaft, a guideway in which the end of said arm travels, transverse guideways connected with the main guideway, a switch block arranged at the junction of one of the transverse guideways and the main guideway, and a key for operating said switch block. 42nd. The combination, with the type wheels and the spiral operating shafts, of the spring controlled locking plates adapted to engage and lock said spiral shafts, for the purpose set forth. 43rd. The combination, with a keyboard provided with a series of keys, of a series of type wheels and a support therefor, a transmitting mechanism on the type wheel support, said key board and said support with the parts thereon being relatively movable to accomplish proportional movement of said type wheels and the return thereof to zero, for the purpose set forth. 44th. The combination, in a computing machine, of a keyboard provided with a plurality of series of keys, a series of type wheels, one for each series of keys, a transmitting mechanism operable by selected keys when said keyboard and transmitting mechanism are relatively moved and communicating proportional movement to said type wheels. 45th. The combination, in a computing machine, of a key, with a transmitting mechanism, a figured wheel operatively connected with said transmitting mechanism, said key adapted for indicative operation without operating said transmitting mechanism, and means for producing relative movement between said key and transmitting mechanism and thereby operating said wheel. 46th. The combination, in a computing machine, of a key, with a transmitting mechanism, a figured wheel operatively connected with said transmitting mechanism, and means independent of the selective or indicative movement of said key, producing relative movement between the same and said transmitting mechanism, by which movement the latter and said wheel are operated by said key. 47th. The combination, in a computing machine, of a key, with a transmitting mechanism, a figured wheel operatively connected with said transmitting mechanism, and means, independent of the selective or indicative movement of said key, producing relative movement between the same and said transmitting mechanism, by and during which movement the latter and said wheel are operated through the engagement of said key and the transmitting mechanism. 48th. The combination, in a computing machine, of a series of keys, with a transmitting mechanism, a figured wheel for operation by said transmitting mechanism, said