

provided with a concave die as *b*, and mounted on the sleeve P, the disk S mounted on the shaft I within said chamber and provided with a convex die as *a*, means for actuating said sleeve and shaft to rotate said shaft and disk S in opposite directions, and means for adjusting the disk S substantially as set forth. 22d. In a machine for making rolled forgings, a die as *b* having a working face which is concave in longitudinal section, and provided on said face with a longitudinally arranged groove, and 44, said groove being wider and deeper at one end than at the other, substantially as described. 23d. In a machine for making rolled forgings, a die as *a*, having a working face which is convex in longitudinal section, and said die being provided on said face with a longitudinally arranged groove which is wider and deeper at one end than at the other, substantially as described. 24d. In a machine for making rolled forgings, a die as *b* having a working face which is concave in longitudinal section, and provided on said face with a longitudinally arranged groove which is wider and deeper at one end than at the other, substantially as described. 25th. In a machine for making rolled forgings, a die as *b* having a working face which is convex in longitudinal section, and provided on said face with a longitudinally arranged groove which is wider and deeper at one end than at the other, as 44, and with cutting flanges or bosses at the sides of said groove, as 59, the flanges being higher at the wide end of the groove than at their opposite ends, substantially as set forth. 26th. In a machine for making rolled forgings, the die *a* having a working face which is convex in longitudinal section, and provided with the groove 44 and cutting bosses 59, the die *b* having a working face which is concave in longitudinal section, and provided with the groove 44 and cutting bosses 59 and supporting and actuating mechanism for said dies, whereby one may be moved over or past the other longitudinally through the arc of a circle, their working faces being adjacent as they pass, and their ends 42 respectively in advance as they approach each other to pass, substantially as set forth. 27th. In a machine for making rolled forgings, the block V provided with a die on its curved edge, in combination with the disk S mounted on said shaft G, and screws for adjusting and securing said block on said disk, substantially as described. 28th. In a machine for making rolled forgings, the disk R mounted on the sleeve P, and provided with a concave die as *b*, means for adjustably securing said disk on said sleeve, the disk S mounted on the shaft G and provided with a convex die as *a*, means for adjustably securing said disk on said shaft, and actuating mechanism for the sleeve and shaft, whereby the disks may be revolved in opposite directions, substantially as set forth. 29th. In a machine for making rolled forgings, a stop, as 8, in combination with the disk R provided with a concave die, as *b*, and disk S provided with a convex die as *a*, substantially as and for the purpose set forth. 30th. In a machine for making rolled forgings, the input rest *h*, in combination with the die carrying disks S, R, and actuating mechanism therefor, said rest being arranged substantially as described. 31st. In a machine for making rolled forgings, the output rest *i*, in combination with the die carrying disks S, R, and actuating mechanism therefor, said rest being arranged substantially as described. 32d. In a machine for making rolled forgings, the rest *h* and yielding rest *i*, in combination with the die-carrying disks S, R, and actuating mechanism therefor, said rests being arranged at opposite sides of the axis of the disk S, substantially as described. 33rd. In a machine for making rolled forgings, the plate *g* having a curved serrated edge 62, in combination with the disk S carrying a die, as *a*, substantially as set forth. 34th. In a machine for making rolled forgings, the plate *g* having a curved serrated edge 62 and secured to the adjustable block V, in combination with the disk S carrying a die, as *a*, substantially as described. 35th. In a machine for making rolled forgings, the plate *g* secured to the disk R and provided with a curved serrated edge 92, substantially as set forth. 36th. In a machine for making rolled forgings, the disk S provided with the plate *g* having the curved serrated edge 62, in combination with the disk R provided with the plate *g* having the curved serrated edge 92, said plates being arranged substantially as described. 37th. In a machine for making rolled forgings, the journalled shaft G, provided with the gear M and disk S, the sleeve P disposed on said shaft and provided with the gear O and disk R, the journalled pinion N intermeshing with the gear O, the journalled gear R provided with the pinion L, said pinion intermeshing with the gear M and pinion N, the pulley H provided with the pinion J and loosely mounted on the shaft G, said pinion intermeshing with the gear K, the journals *m*, *k* and suitable supports for said journals and shaft, combined and arranged to operate substantially as set forth.

George King, East Haddon, and William A. Smith, Weedon, Eng.,
1st August, 1888; 5 years

(Carabine à répétition.)

William M. Cooper, (Co-inventor with Edwin J. Cashmore), Toronto.
Ont., 1st August, 1888: 5 years.

Claim.—1st. The combination, with the barrel of a repeating rifle, of a recoil-block located between the end of the barrel and the case containing the action of the repeater, substantially as and for the purpose specified. 2nd. A cartridge-magazine made parallel with, and forming an integral part of, a rifle-barrel, substantially as and for the purpose specified. 3rd. The combination, with the magazine of a repeating rifle, of an adjustable cut-off arranged to lock cartridges in the magazine, to enable the rifle to be used as an ordinary single shot breech-loader, substantially as specified. 4th. A cartridge-magazine made parallel with and forming an integral part of a rifle-barrel, in combination with a bayonet having a shank formed to fit onto the magazine, and a clip arranged to connect the neck of the bayonet with the barrel of the rifle, substantially as and for the purpose specified.