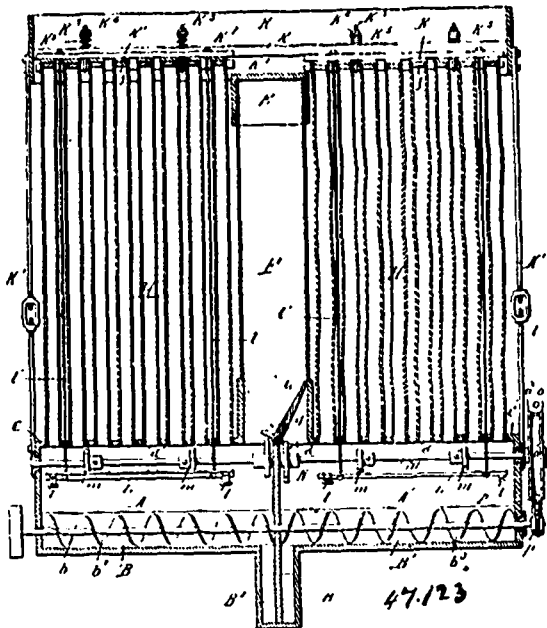


valve, co-operate with each other to render available an increased admission area to the low pressure port, for a given valve travel, substantially as described. 6th. In a double compound engine, the combination with the two independent valve-seats and the two independent valves on said seats, of a pair of independent supplementary fluid supply passages, each for connecting one high pressure cylinder with a source of fluid supply, and a valve in each of said passages controllable at will, for converting the compounds into simple engines, substantially as described. 7th. The combination with two single cylinder compound engines set tandem and having their pistons connected by a common trunk, of the two valve-seats, the two valves on said seats reciprocating in common directions, a pair of supplementary fluid passages, for connecting the respective high pressure ends of the two cylinders with the respective high pressure valve chests, and valves in said passages controllable, at will, for converting the said compounds into simple engines, substantially as described.

No. 47,123. Dust Collector. (Aspirateur de poussière.)

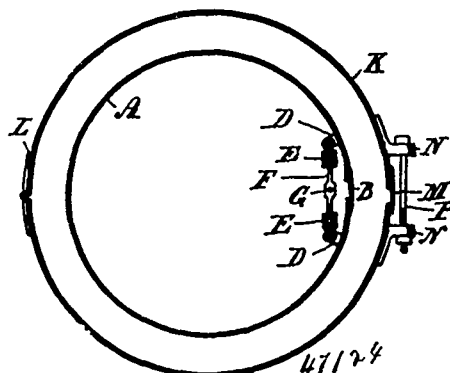


August Heine, Silver Creek, New York, U.S.A., 1st October, 1894; 6 years.

Claim.—1st. The combination, with a descending expansion chamber having an inlet for the dust laden air at its upper end, of a receiving chamber communicating at its top with the lower end of said expansion chamber and extending laterally on both sides thereof, and two sets of filtering tubes mounted on said receiving chamber on both sides of the expansion chamber and opening with their lower ends into the same, substantially as set forth. 2nd. The combination, with the receiving or settling chamber, of a descending air passage or expansion chamber having its walls constructed of filtering material and opening at its lower end into the receiving chamber, and two sets of filtering tubes opening at their lower ends into the receiving chamber, substantially as set forth. 3rd. The combination, with a receiving or settling chamber, of an air passage or expansion chamber opening at its lower end into the receiving chamber, an inlet chamber having its bottom connected with the upper end of the expansion chamber and provided with inlet spouts at both of its ends, and filtering tubes connected with the receiving chamber, substantially as set forth. 4th. The combination, with a descending expansion chamber, having an inlet for the dust laden air at its upper end, of a divided receiving chamber communicating at its top with the lower end of said expansion chamber and extending laterally on both sides thereof, two sets of filtering tubes mounted on said receiving chamber on both sides of the expansion chamber and opening with their lower ends into the same, and a valve mounted centrally on the divided receiving chamber whereby the dust laden air current can be excluded from either part thereof, substantially as set forth. 5th. The combination, with two receiving or settling chambers, of an air passage or expansion chamber adapted to communicate with either of said chambers, two sets of open ended filtering tubes, the tubes of each set opening into one of said receiving chambers, and a connecting chamber communicating with the open upper ends of both sets of filtering tubes, substantially as set forth. 6th. The combination, with two receiving or settling chambers, of an air passage or expansion chamber having a valve for placing said air passage in communication with either of said chambers, two sets of filtering tubes, open at both ends, the tubes of each set communicating at their lower ends with one of said

chambers, a connecting chamber whereby the upper ends of both sets of tubes are placed in communication and a valve arranged in said connecting chamber and adapted to cut off communication between the upper ends of the two sets of tubes, substantially as set forth. 7th. The combination, with the divided receiving chamber, having two inlets and two sets of filtering tubes opening into said receiving chamber of a valve capable of being shifted for excluding the current from either part of the receiving chamber and a cam for actuating said valve, substantially as set forth. 8th. The combination, with the divided receiving chamber, having two inlets and two sets of filtering tubes, of a valve pivoted centrally upon the divided receiving chamber and provided with two lugs projecting from opposite sides of its pivot and two rotary cams engaging respectively with said lugs, each cam having its face provided with a projection, a recess arranged diametrically opposite the projection and provided with an abrupt front side and an inclined rear side and two concentric portions between opposite sides, of the projection and the recess, the cams being so arranged that the projection of one cam is in line with the recess of the other cam, substantially as set forth. 9th. The combination with the receiving chamber, the filtering tubes opening with their lower ends into said chamber and the spring connected with the upper ends of the tubes for holding the same taut, of a presser bar arranged in the receiving chamber, cords connecting said bar with the upper ends of the tubes and a tappet wheel arranged in the receiving chamber and adapted to depress said presser-bar for agitating the tubes, substantially as set forth. 10th. The combination with the divided receiving chamber, provided with two inlets and two sets of filtering tubes opening with their lower ends into the receiving chamber, a valve pivoted centrally upon the receiving chamber, and capable of being shifted for excluding the current from either part of the receiving chamber, a shaft arranged in the receiving chamber and provided with cams for shifting said valve, a spring yieldingly supporting the upper ends of the filtering tubes and holding the same taut, a pressure-bar arranged in the receiving chamber, and connected with the upper ends of said tubes, and tappet-wheels secured to said shaft and adapted to engage with said presser-bar for agitating the filtering tubes, substantially as set forth. 11th. The combination with the divided receiving chamber provided with two inlets and two sets of filtering tubes opening into the divided chamber, of a valve adapted to exclude the current from either part of said divided receiving chamber, a shaft arranged in said chamber and provided with a cam for shifting said valve, a driving wheel secured to the outer end of said shaft and provided with a peripheral groove and a toothed rim on opposite sides of said groove and a link belt arranged in said groove and provided with a cross-bar adapted to engage with said rim, substantially as set forth. 12th. The combination with a manifold head provided with a tube opening having a shoulder, of a filtering tube provided at one end with a ring which bears against said shoulder, substantially as set forth. 13th. The combination with the manifold head provided with a tube opening having a shoulder, of a filtering tube provided at one end with a ring which bears against said shoulder and staples whereby the ring is secured to the head, substantially as set forth.

No. 47,124. Pipe Mould. (Moule pour tuyaux.)



William John Anthistle, London, Ontario, Canada, 1st October, 1894; 6 years.

Claim.—1st. A pipe mould consisting of an inner tubular cylinder or core A, having overlapping edges or attached strip B, and lugs D, along said opposite edges, sockets E, pintled to said lugs, and screw rods F, connecting said sockets in pairs, to expand and contract said core, and an outer tubular cylinder or shell K, having overlapping edges or attached strip M, and constructed of two semi-cylindrical sections hinged together, and provided with lugs N, along opposite meeting edges, said lugs connected by screw bolts P, as set forth. 2nd. A reversible moulding ring R, having annular V or U-shaped flange S, in combination with the contracting and expanding concentric tubular core A, and shell K, for forming an annular tongue and grooves at the ends of the pipe when moulded, as set forth.