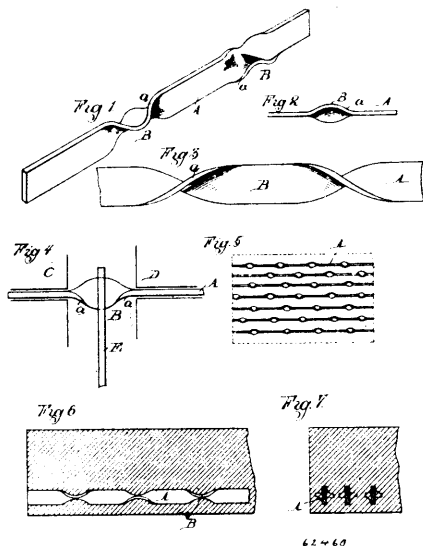


bars extending from below the neutral line in the central portion of the span diagonally upward to the ends of the span. 5th. A com-



posite floor-span comprising a body of artificial stone and the alternately-arranged metallic tension members F and G embedded therein, the former consisting of U-shaped bars having the horizontal portions *c* the upturned portions *d* and the outwardly extending end portions *e*, and the latter consisting of the upwardly-inclined portions *g* and the outwardly extending end portions *f*, the portions *c* and *f* forming supporting arms or hooks for the span. 6th. A composite span comprising a body of artificial stone and a metallic strengthening member embedded therein while under tension. 7th. A composite span comprising a body of artificial stone and metallic strengthening members having anchoring shoulders formed therein at intervals, said members being embedded in the body while under tension. 8th. A composite span comprising a body of artificial stone and metallic strengthening members embedded therein in a portion of the span subject to tensile strains, said strengthening members being provided at intervals with anchoring shoulders and being embedded in the body while under tension. 9th. A floor and ceiling construction, comprising a metallic floor beam, a strip or slab of artificial stone placed beneath said beams, and having laterally extending anchors and a ceiling span extending between said beam and the adjacent beam formed of metallic strengthening members and a body of artificial stone in which said members and said lateral anchors are embedded. 10th. In a floor construction, a removable slab forming a section of the floor comprising a body of artificial stone, a series of longitudinal metallic strengthening members embedded therein, each comprising a flat bar twisted at intervals to form anchoring shoulders, and one or more independent cross strengthening members. 11th. In a floor construction, a removable slab forming a section of the floor, comprising a body of artificial stone, and metallic strengthening members embedded therein, a series of said members being arranged side by side near the bottom of the slab, and a second series of lighter weight being arranged near the upper surface of the slab. 12th. A floor construction comprising the floor beams, monolith artificial stone ceiling and floor spans arranged respectively below and above said beams, the floor span having an opening left therein, and a slab removably closing said opening consisting of a body of artificial stone and metallic strengthening members embedded therein the ends of said slab being supported upon the floor beams.

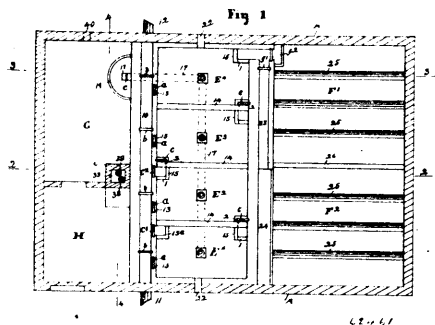
No. 62,461. Sewage Treating Apparatus.

(Appareil pour le traitement des égouts.)

Garret D. Mitchell, Chelsea, Massachusetts, U.S.A., 25th January, 1899; 6 years. (Filed 9th April, 1898.)

Claim.—1st. In a sewage treating plant, a series of covered collecting-tanks having connections for flowing off liquid from each tank to the next tank from a point between the two bodies of light and heavy solid material collected at the top and bottom of the tank, in combination with one or more filters for the liquid delivered from the last tank, a covered sludge-filter, connections from the tanks to the sludge-filter, a building inclosing said tanks and filters, and connections for ventilating the collecting-tank and sludge-filter independently of the building, substantially as described. 2nd. In a sewage treating plant, a series of covered collecting-tanks having connections for flowing off liquid from each tank to the next tank from a point between the two bodies of light and heavy solid material collected at the top and bottom of the tank, connections for carrying off the sludge from each tank, one or more filters for the liquid delivered from the last tank, a building inclosing said tanks and

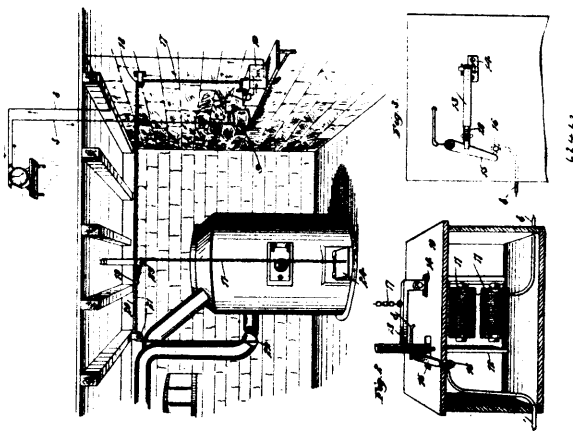
filter or filters, and separate ventilating connections for the collecting-tanks and the building, substantially as described. 3rd. A sewage



collecting-tank having a delivery pipe provided with an opening from the tank near the bottom of the latter and an outlet at the top of the tank and means for adjusting vertically the position of the opening from the tank, substantially as described. 4th. A series of sewage collecting-tanks having pipes 15, connecting said tanks and provided with opening 1, from and near the bottom of the tank from which the liquid is to be drawn and opening 2 near the top of the tank through which the liquid is delivered to the next tank, in combination with sewage sluice-way 10, connected with the tanks, and gates controlling communication between the tanks, and between the different tanks, substantially as described. 5th. A series of sewage collecting-tanks having connections for flowing off liquid from a point below the level of liquid in each tank to the next tank, and gates controlling said connections, in combination with sluice-way and tanks and gates controlling said passages, gates *b*, in said sluice-way, and other passages between the sluice-way and one or more of the first tanks of the series for flowing off the sewage-water to the sluice-way from a point below the level of the water in the tanks and controlled by gates, as *c*¹, *c*², substantially as described. 6th. A series of sewage collecting-tanks having connections for flowing off liquid from a point below the level of liquid in each tank to the next tank, and gates controlling said connections, in combination with sluice-way 10, passages 13, between the tanks and gates controlling said passages, and gates *b*, in said sluice-way, sludge delivery and washing pipe 17, below the tanks and gates, *d*, controlling the outlet from the tanks to the pipe 17, substantially as described. 7th. A series of sewage collecting-tanks having connections for flowing off liquid from a point below the level of liquid, in each tank to the next tank, and gates controlling said connections, in combination with sluice-way 10, passages 13, between the tanks and gates controlling said passages, gates *b*, in said sluice-way, and other passages between the sluice-way and one or more of the first tanks of the series for flowing off the sewage water to the sluice-way from a point below the level of the water in the tanks and controlled by gates, as *c*¹, *c*², sludge delivery and washing pipe 17, below the tanks, and gates, *d*, controlling the outlets from the tanks to the pipe 17, substantially as described.

No. 62,462. Damper Releasing Device.

(Appareil à régler le tirage.)



Thomas Kitson, Stroudsburg, Pennsylvania, U.S.A., 26th January 1899; 6 years. (Filed 22nd September, 1898.)

Claim.—The combination of a casing having a slot in one wall thereof of an electro-magnet mounted in the casing, an armature pivotally mounted