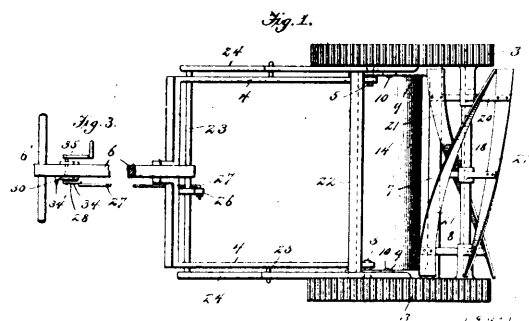
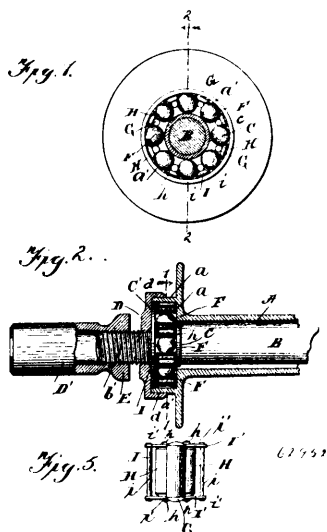


No. 62,951. Lawn Mower. (*Tondeuse de pelouses.*)

John Wright, Brussels, Ontario, Canada, 13th April, 1899; 6 years. (Filed 13th March, 1899.)

Claim.—1st. In a lawn mower, the combination with the driving-wheels and the gear covering frame discs therefor, of the ground roller extending between the wheels and journaled in said discs, and pinions on the shaft of said roller in mesh with the teeth of said driving wheels. 2nd. In a lawn mower, the combination with the driving-wheels and the gear covering frame discs therefor, of the interposed ground roller journaled in said discs, and pinions on the shaft of said roller in mesh with the teeth of said driving wheels and having each a pawl and ratchet connection with the shaft of the roller, for the purpose and substantially as described. 3rd. In a lawn mower, the combination with the ground wheels, the frame discs covering the gearing of said wheels provided with rearwardly extending rigid arms or bars, a thrust frame pivoted to said discs, a rock shaft journaled in said thrust frame and provided with an arm connected by a link to said rearwardly extending frame bars, a pendant arm on said rock shaft, a connecting rod between said pendant arm and an arm on a second rock-shaft journaled in brackets on the thrust bar, and means for adjusting said second rock shaft for effecting the adjustment of the cutting apparatus and ground roller relative to the ground, substantially as described. 4th. The combination in a lawn mower of the internally cogged carrying wheels 3, the frame plate cover discs 1 on which said wheels are journaled, arms 25 rigid on said discs, the thrust frame bars 4 pivoted to said discs, a rock-shaft 2, journaled in said frame bars and provided with forwardly extending arms 24 linged to the rigid frame disc arms 2, a pendant arm 25 on said rock-shaft, a rock-shaft 29 journaled in a two-armed bracket 30 on the thrust of the handle-bar, a crank arm 28 on said second rock shaft, a connecting rod 27 connecting the arms 26 and 28, stops on a two-armed bracket for limiting the throw of the arm 28 arranged to hold the said arm locked in either position of adjustment, and means for actuating the crank arm 28 for effecting the relative adjustment of the thrust frame and the frame discs on which the carrying wheels are mounted, substantially as described.

No. 62,952. Roller Bearing. (*Cousinet anti-frottant.*)

George J. S. Collins, Chicago, Illinois, U.S.A., 13th April, 1899; 6 years. (Filed 5th January, 1898.)

Claim.—1st. A roller bearing comprising a journal box, an annular roller race therein, main roller supporting elements within the race, and roller separating devices each embracing one or more smaller roller elements interposed between the adjacent pairs of main sup-

porting roller elements, and supported free from contact with the journal and opposing wall of the housing. 2nd. A roller bearing consisting of a journal box, an annular roller race therein, main supporting elements within the race, and roller separating devices each embracing one or more smaller roller elements, interposed between adjacent pairs of main support roller elements, one or more guide rollers arranged to support said ball separating elements free from contact with the journal and housing. 3rd. A roller-bearing comprising a journal box, an annular roller race therein, main supporting roller elements and roller separating devices each embracing three smaller roller elements arranged and confined in triangular relation to each other within the space between the pairs of adjacent main support rollers and one of the bearing surfaces of the bearing. 4th. A roller-bearing comprising a journal box on annular roller race therein, main supporting roller elements within the race, and roller separating devices each embracing three smaller roller elements arranged in triangular relation to each other, two of which are of axially elongated form and held in fixed relation by means of a caging device, and a third of which is arranged to rest in rolling contact with the other two. 5th. A roller-bearing comprising a journal box, an annular roller race therein, main supporting roller elements within the race and roller separating devices arranged between each pair of adjacent supporting rollers, said devices each comprising three smaller roller elements arranged in triangular relation to each other two of which are provided at each end with axially arranged trunnions, held in parallel relation with each other by means of a caging device consisting of parallel side plates secured at a fixed distance apart by means of distance studs, and provided with bearing apertures with which the trunnions of said roller elements are engaged. 6th. A roller-bearing comprising a journal box, an annular roller race therein, main supporting roller elements within the race, and roller separating devices arranged between each pair of adjacent main supporting rollers, said devices each comprising three smaller roller elements arranged in triangular relation to each other two of which are provided at each end with axially arranged trunnions, held in parallel relation with each other by means of a caging device consisting of parallel side plates secured at a fixed distance apart by means of distance studs, and provided with bearing apertures with which the trunnions of said roller elements are engaged, said trunnions being extended through and beyond the side plates of the caging devices to form bearing plates which engage the sides of the ball race and hold the caging devices from contact therewith. 7th. A ball-bearing comprising a journal box, an annular roller race therein, a plurality of roller elements within the race, each of a diameter equal the radial depth of said race, whereby the bearing pressure is transmitted directly from the journal box to the journal, and roller separating devices, each embracing one or more smaller roller elements interposed between adjacent pairs of main supporting roller elements and supported free from contact with the journal and the housing by means of guide rollers.

No. 62,953. Process for Fermenting Amylaceous Substances. (*Procédé pour la fermentation de substances amylacées.*)

Jean Effront, Brussels, Belgium, 13th April, 1899; 6 years. (Filed 28th July, 1898.)

Claim.—1st. An improved process for fermenting dextrinated wort by means of a yeast acclimatized to the dextrine, consisting in fermenting the yeast in a wort prepared from a sugar solution containing yeast dregs and mineral salts such as nitrate of potash with the addition of aldehyde after sterilization, in then fermenting the collected yeast in a wort of the same composition and in repeating frequently this operation but with increasing proportions of nitrate and aldehyde for each cultivation, in then fermenting the yeast of the last culture in a wort of dextrine mixed with a solution of sugar, yeast dregs and nitrate of potash with the addition of aldehyde after neutralisation and in fermenting the results of this culture in wort of the same composition but having a proportion of sugar decreasing up to entire suppression, in order to afterwards ferment, by means of the wort obtained dextrinated worts in large quantities, substantially as hereinbefore described. 2nd. In the process for the fermentation of dextrinated worts hereinbefore described, the use of nitrate of potash and aldehyde in any suitable stage of the manufacture or in its preparatory operations, substantially as described.

No. 62,954. Anti-Friction Bearing. (*Cousinet anti-frottant.*)

Walter Charles Baker, Cleveland, Ohio, U.S.A., 13th April, 1899; 6 years. (Filed 30th July, 1898.)

Claim.—1st. In an anti-friction bearing, the combination with an axle or journal, of a sleeve or casing provided at its ends with annular chambers, adjustable bearing rings arranged on the axle or journal within each of said chambers, one of said rings in each chamber having opposite cone surfaces, balls bearing against said cone surfaces, means for securing the balls in position, and means for simultaneously adjusting the sleeve, bearing rings and balls, by a single mechanical action. 2nd. An anti-friction bearing comprising an axle or journal provided at its front end with an internal screw-threaded orifice, and suitable cones and balls for forming anti-friction bearings, and a securing and adjusting screw engaging the internal screw-threaded orifice in the end of the axle or journal, said