

March 1, 1938.

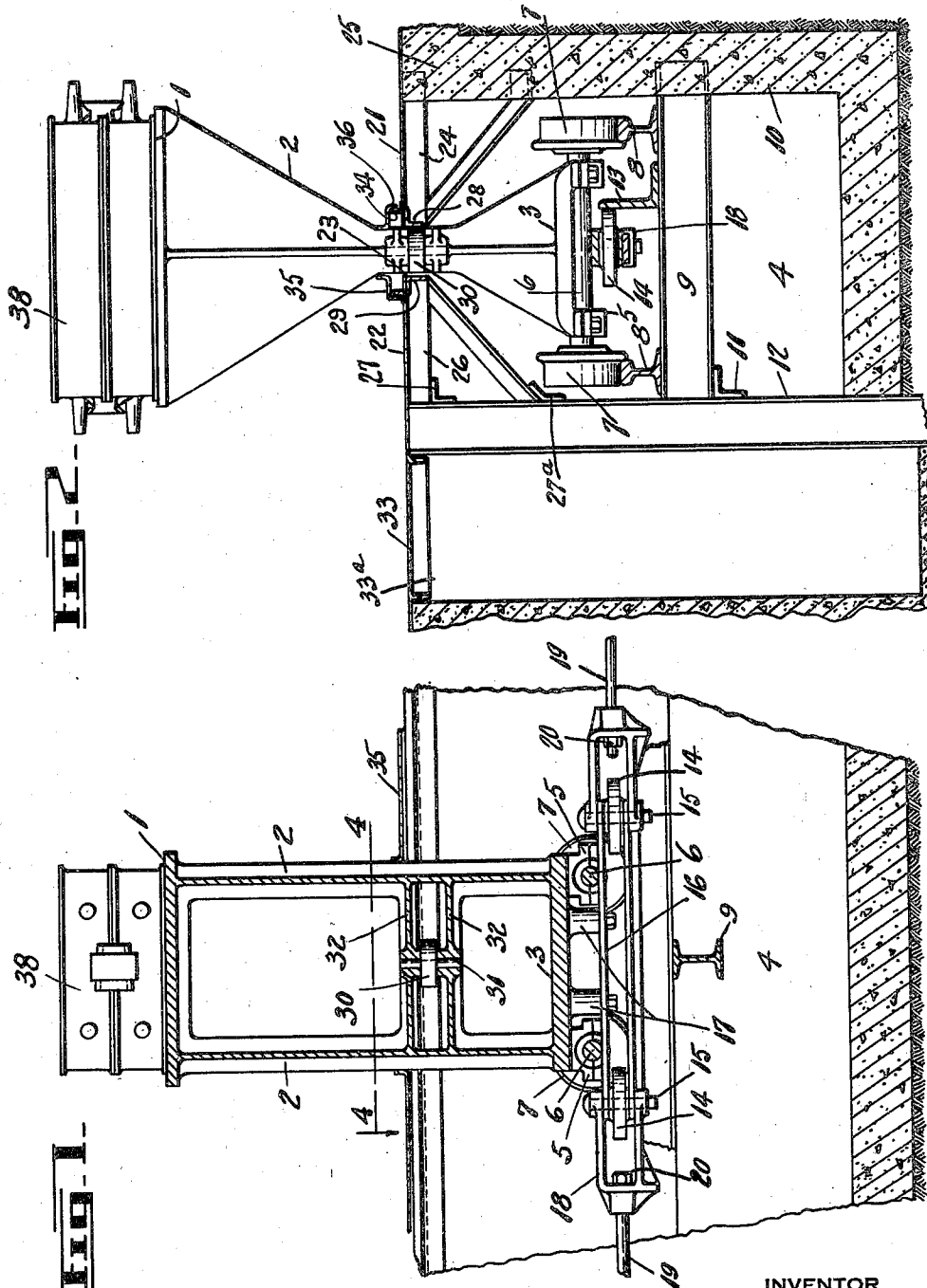
G. W. CANNON

2,109,899

CONVEYER

Filed May 27, 1936

3 Sheets-Sheet 1



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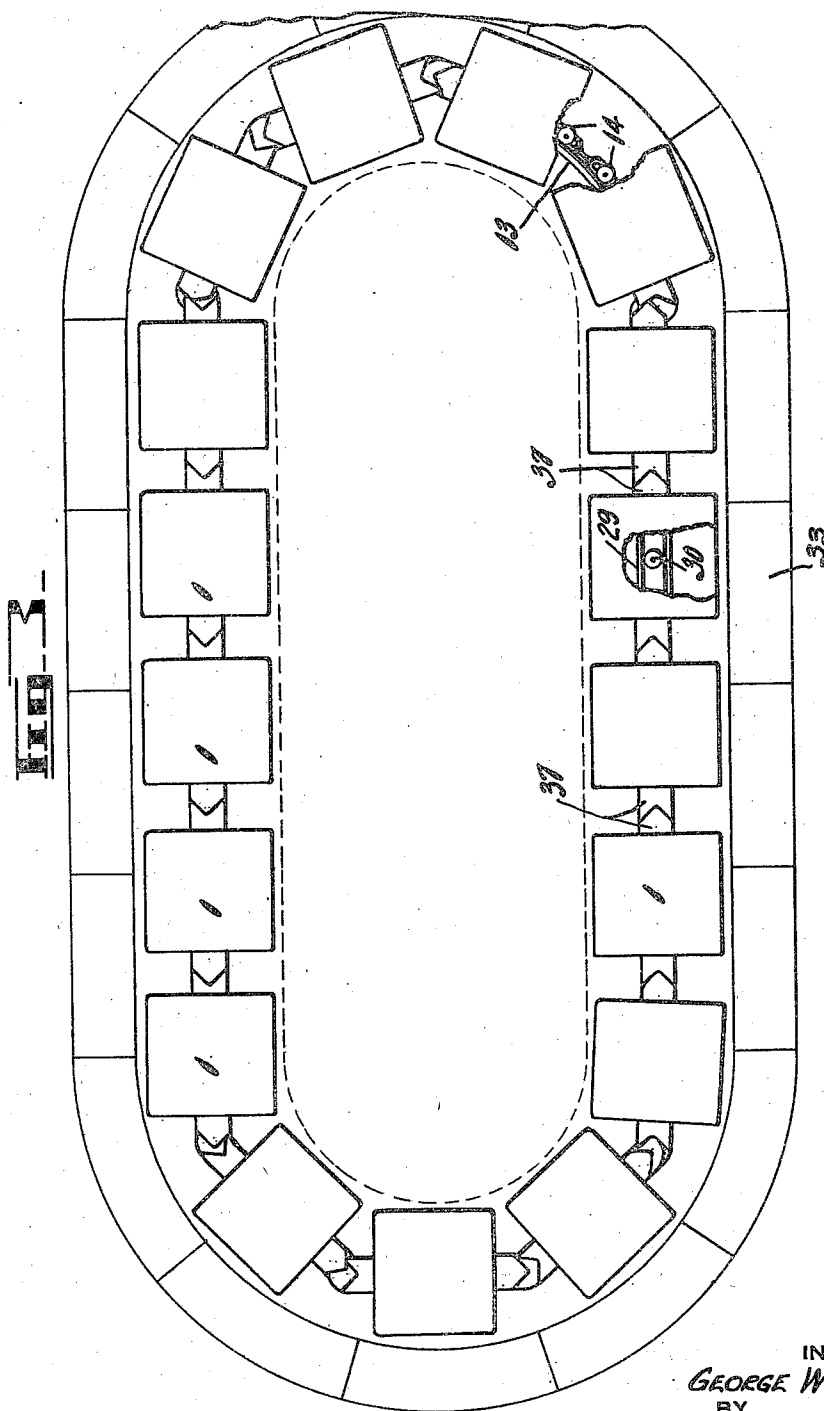
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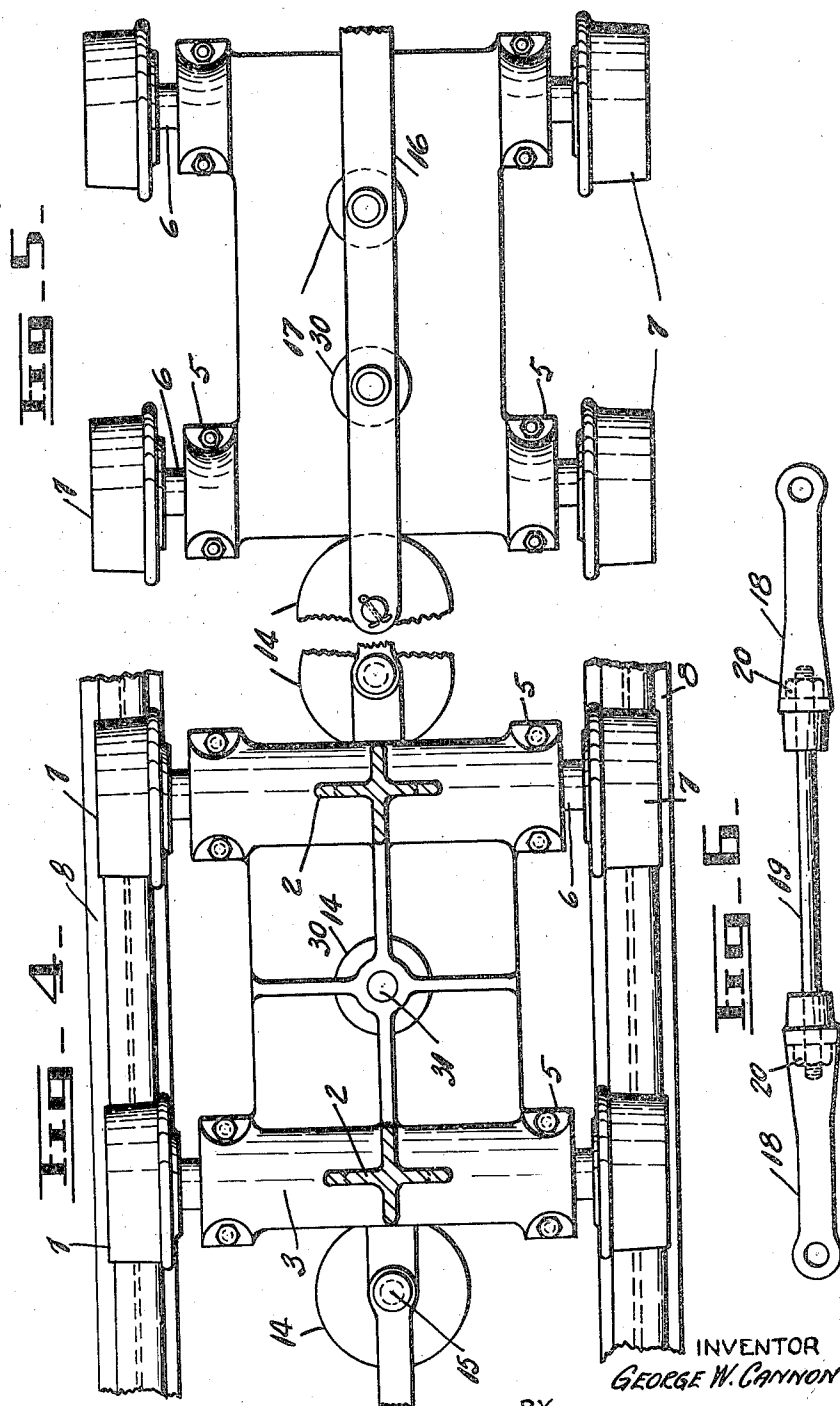
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2,109,899

CONVEYER

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5 Claims. (Cl. 198—181)

My present invention relates to improvements in conveyers and particularly to conveyers employed in metal working foundries for conveying molds, castings and the like. The objects of improvement are, first, to provide a conveyer of such structure that the workmen can pass from side to side without climbing over the conveyer; second, to provide a conveyer in divided sections; third, to provide a conveyer that will be free from foundry floor obstructions; fourth, to provide a conveyer having its operative mechanism below the foundry floor; fifth, to provide a conveyer of simple construction; sixth, to provide a conveyer whereof the operative mechanism will be enclosed; and, seventh, to provide a conveyer that will have a long operative life.

I attain the named objects and others that will be apparent from a perusal of the description taken in connection with the accompanying drawings, in which:

Figure 1 is an elevation in part section, having a foundry flask with its mold therein in the act of being conveyed.

Figure 2 is an end elevation of one of the carrier sections, and sectional view of the assemblage tunnel.

Figure 3 is a plan view illustrating the arrangement of the carrier sections.

Figure 4 is a plan view of one of the carrier sections looking downward from line 4—4 of Figure 1.

Figure 5 is an under side view of one of the carrier sections.

Fig. 6 is a top plan view of the draft rigging by which the trucks of the truck train are coupled together.

Throughout the drawings similar numerals refer to similar parts, and referring thereto:

1 represents the top or work supporting table supported above the foundry floor by columns 2 extending upwardly from the carrier truck plate 3, located in tunnel 4 below the level of the foundry floor, the truck plate having at its under side journal bearings 5 in which are journaled axles 6 having flanged wheels 7 running on track rails 8 supported on tunnel crossbeam 9, having one of its ends anchored in tunnel wall 10 and its other end supported by angle bracket 11 on upright column 12. Secured to the upper side of cross beam 9 is carrier truck guide rail 13 engaged by guide wheels 14 journaled on truck connector pins 15 carried by the pair of connector straps 16, the upper one of which is secured to downwardly extending lugs 17 at the under side of truck plate 3. At the ends of the connector

straps 16 are yokes 18 engaging the connector pins 15. Connected with the yokes 18 at each end of the connector straps 16 are draw bars 19 secured to the yokes 18 as by nuts 20. At the top of tunnel 4 are floor plates 21 and 22 spaced apart to form slot 23 and having their opposed edges supported by bracket 24 anchored into concrete wall 25 and bracket 26 supported on column 12 and secured thereto by the angle members 27 and 27a. Within the slot 23 and secured to the extended ends of the brackets 24 and 26 are guide members 28 and 29 for guiding and supporting columns 2 having the table plate 1 thereon in upright position by guide wheels 30 journaled on king pin 31 in the struts 32 of the columns 2.

The tunnel 4 is of considerably greater width than the space occupied by the conveyer mechanism to allow room for entrance when cleaning the tunnel and lubricating the operative mechanism. Removable floor plates 33 at the side of floor plates 22 close the opening 33a through which entrance to tunnel 4 is made. At each side of the slot 23 on the floor plates 21 and 22 are upwardly extending flanges 34 which act to stop dirt, sand, gravel and pieces of metal from entering or being swept into the slot. Carried by the columns 2 of the carrier truck is apron 35 having at each of its sides and outside the upwardly extending flanges 34, downwardly extending flanges 36. The free ends 37 of the apron 35 of the several carrier trucks join to provide a complete continuous covering for the slot 23. 38 represents a foundry flask with mold therein positioned on the table 1 in which position the mold is conveyed from the molding machine, supported during the pouring of molten metal in the mold and the shaking out of the casting.

In the employment of my improved conveyer in a casting producing foundry, the molds are produced on the usually employed molding machines, within suitable flasks usually consisting of drag and cope members. These portions are assembled on the table plate of the conveyer which is then moved to bring another carrier truck table in position for the assembling of another mold. The previously assembled mold, having been moved a sufficient distance from the assembly station, is poured with molten metal and upon being moved still farther from the assembly station, the poured mold is removed from the conveyer and the casting is removed from the flask. Movement of the conveyer can be either continuous, as by mechanical power drive, or intermittent, as when moved manually.

Having described my invention, I claim:

1. In a conveyer comprising a tunnel having a pair of track rails supported above the tunnel floor and having a truck guide rail intermediate the track rails, floor plates at the top of the tunnel in spaced relation to provide a slot between their opposed edges with downwardly extending guide members at the sides of said slot, a plurality of trucks in endless connected relation supported on said track rails and guided thereon by a plurality of guide wheels carried by said trucks and engaging the said guide rail, column members extending upward from the truck through said slot between said floor plates and having a guide wheel engaging the said guide members at the sides of said slot and a table carried by said columns above said floor plates, the said columns having intermediate said truck and said table a strut extending between and joining said columns, the said strut supporting intermediate the said columns a guide wheel engaging the said downwardly extending guide members.
2. In a conveyer, a plurality of trucks in endless connected formation, a plurality of floor plates above the said trucks arranged in two parallel spaced-apart endless formations having a slot between the opposed sides of the formation, table supporting members extending upward from said trucks through said slot and carrying an apron for movably covering the slot and a plurality of mold supporting members carried by said upwardly extending members in spaced apart formation above said trucks and said floor plates, and means carried by the said table supporting members engaging the sides of said slot for guiding the said members and means

associated with the said truck for guiding the truck.

3. In a conveyer, a plurality of trucks in endless connected formation, a plurality of floor plates above the said trucks arranged in two parallel spaced-apart endless formations having a slot between the opposed sides of the formations, table supporting members extending upward from said trucks through said slot and carrying an apron for movably covering the slot and a plurality of mold supporting members carried by said upwardly extending members in spaced apart formation above said trucks and said floor plates, and means associated with the said truck for guiding the truck.

4. In a conveyer, a plurality of trucks in endless connected formation, a plurality of floor plates above the said trucks arranged in two parallel spaced-apart endless formations having a slot between the opposed sides of the formations, table supporting members extending upward from said trucks through said slot and carrying an apron for movably covering the slot and a plurality of mold supporting members carried by said upwardly extending members in spaced apart formation above said trucks and said floor plates.

5. In a conveyer consisting of a plurality of truck members in connected formation within a tunnel and a flask supporting table carried by columns extending upward through a slot in the top of the tunnel to support the said table, a cover for said slot associated with the said columns and carried by said truck members.

GEORGE W. CANNON.