

(No Model.)

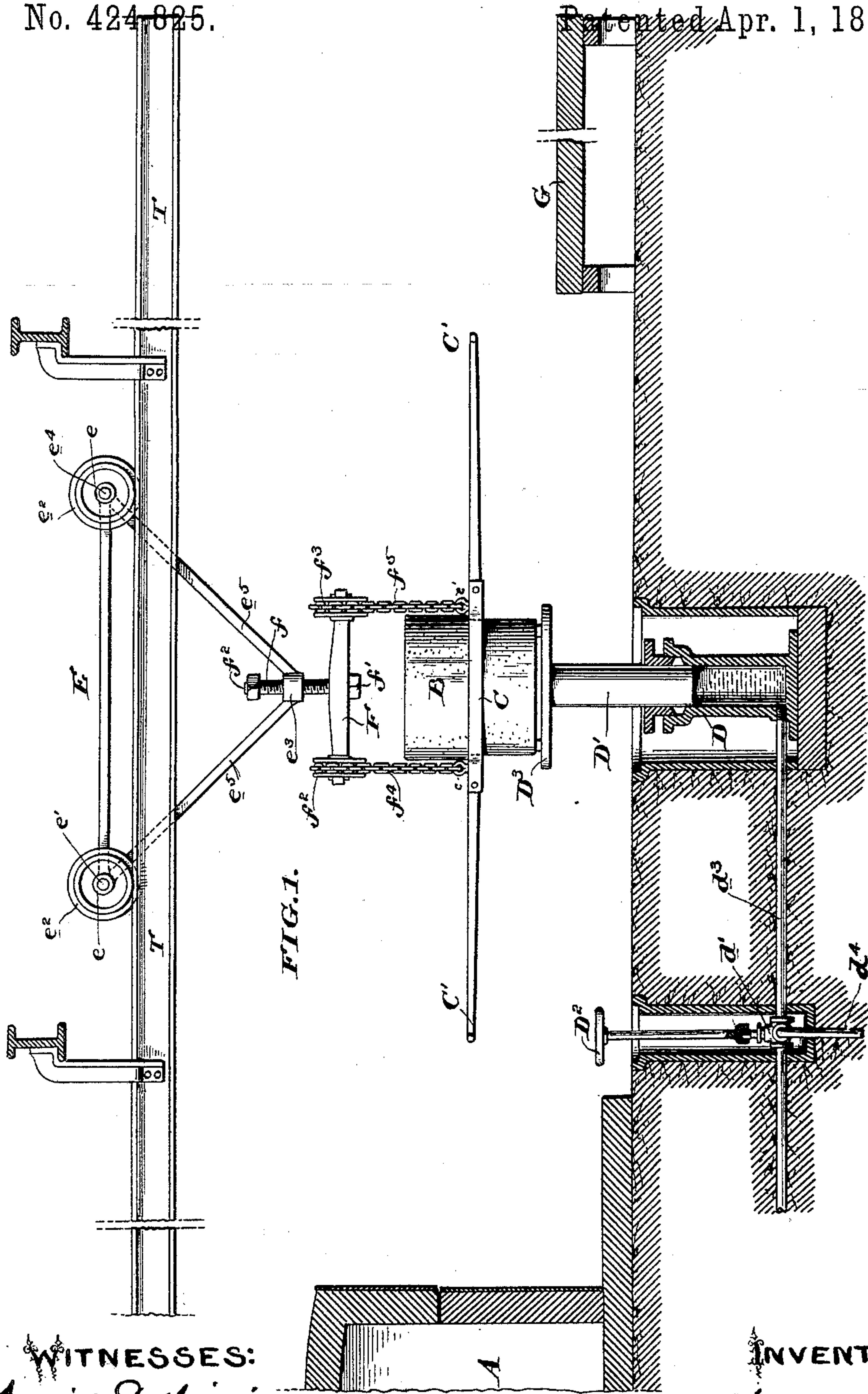
2 Sheets—Sheet 1.

F. SCHEFOLD.

MEANS FOR TRANSFERRING MOLTEN GLASS.

No. 424-825.

~~Patented~~ Apr. 1, 1890.



WITNESSES:

David S. Williams
Henry Drury

INVENTOR:

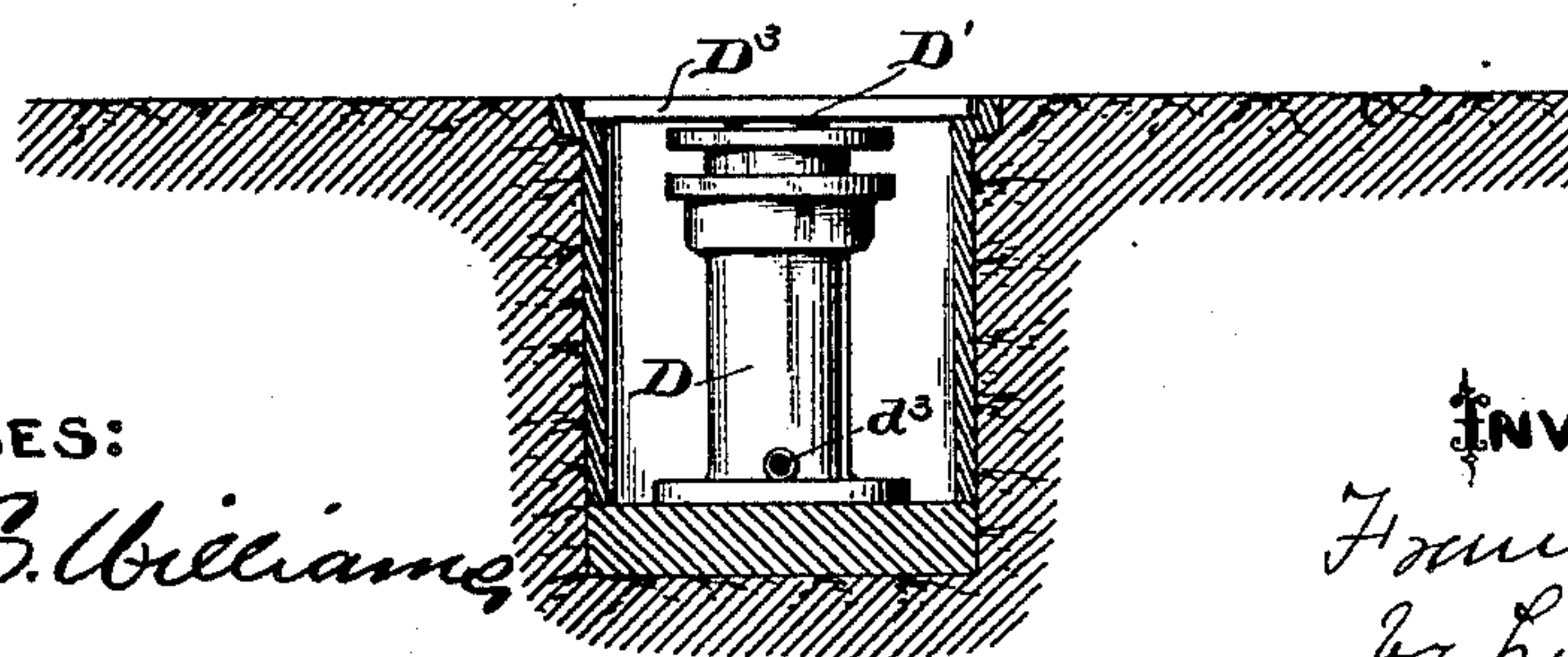
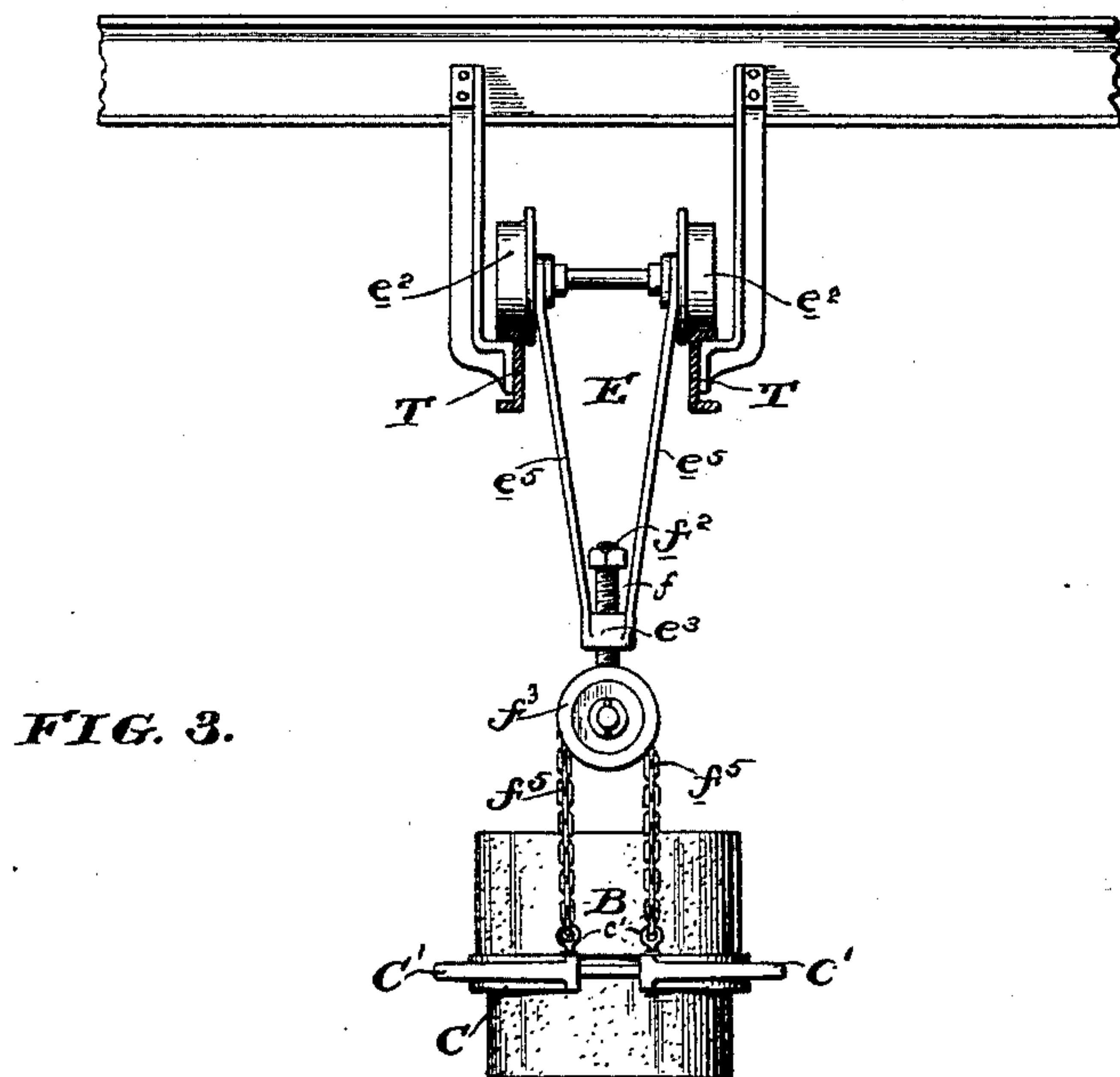
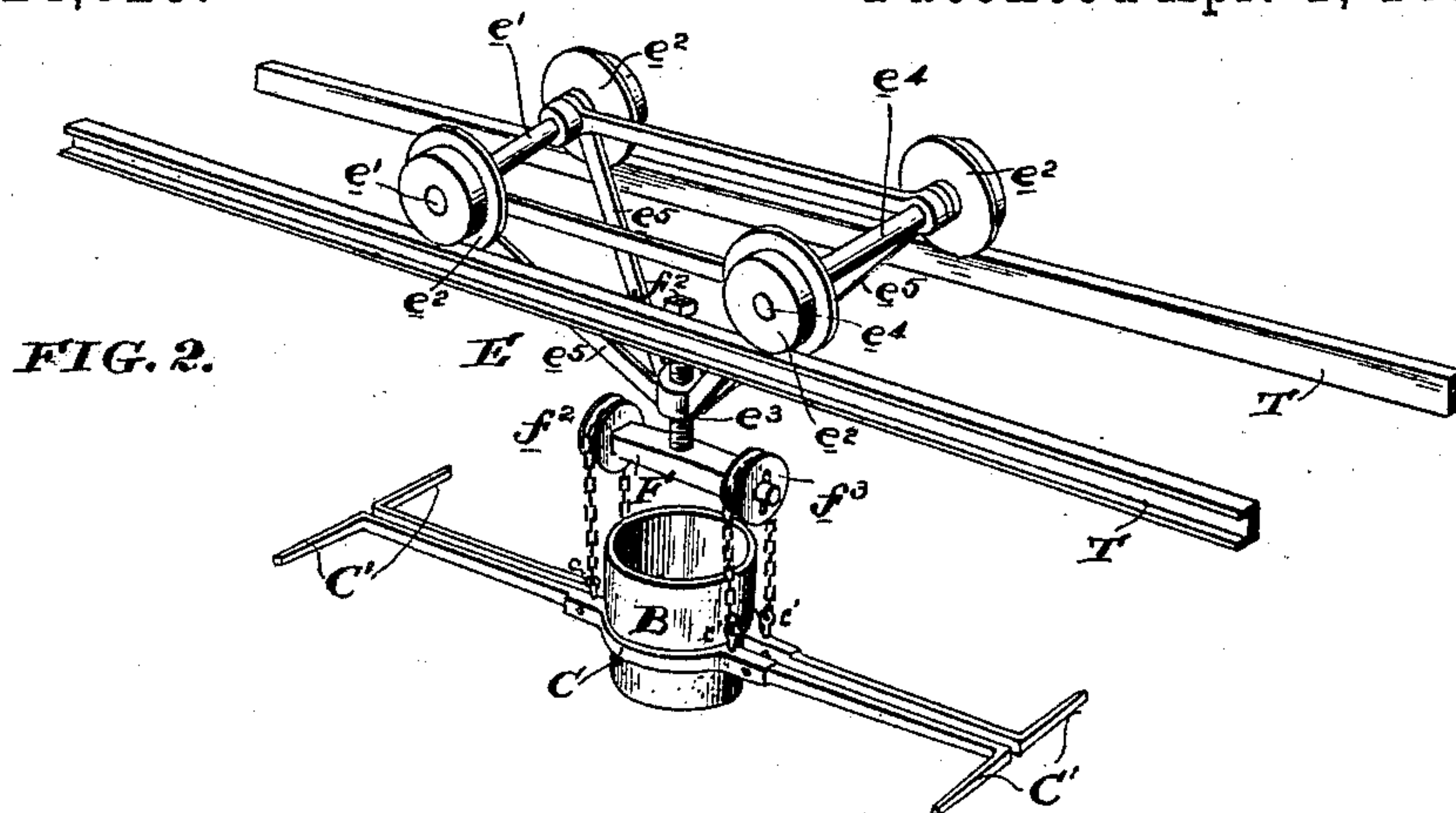
Frank Schell
by his atty
J. H. Henshaw

F. SCHEFOLD.

MEANS FOR TRANSFERRING MOLTEN GLASS.

No. 424,825.

Patented Apr. 1, 1890.



WITNESSES:

David B. Williams,
Henry D. Dwyer

INVENTOR:

Frank Schefold
by his atty
G. H. Harding

UNITED STATES PATENT OFFICE.

FRANK SCHEFOLD, OF NEW ALBANY, INDIANA, ASSIGNOR TO THE W. C. DE PAUW COMPANY, OF INDIANA.

MEANS FOR TRANSFERRING MOLTEN GLASS.

SPECIFICATION forming part of Letters Patent No. 424,825, dated April 1, 1890.

Application filed November 21, 1889. Serial No. 331,114. (No model.)

To all whom it may concern:

Be it known that I, FRANK SCHEFOLD, a citizen of the United States, and a resident of New Albany, in the county of Floyd and State of Indiana, have invented a new and useful means for transferring pots containing molten glass from the furnace to the casting-table in the manufacture of glass, and so transferring them that they are in such adjustment that when the table is reached said pots will be in the proper position to have their contents poured upon the table; and it also consists in certain novel improvements in apparatus whereby this result is accomplished, all of which is fully set forth herein, reference being had to the drawings, which accompany and form a part of this specification.

In the manufacture of plate-glass as heretofore carried on the pot is taken from the furnace and placed on a small car or truck, which is then pushed to a point adjacent to the casting-table, where it is lifted by a crane or other device to a point above the table and the pot tilted so that its contents are poured onto the table. This operation takes some length of time and is very laborious, and often results in the pots being so long a time from the furnace that they become chilled, and in the next melt they are broken to pieces.

By my improved method I am enabled to convey the pot from the furnace to the casting-table rapidly, and also at or nearly the correct elevation necessary, so that said pot may be tilted and its contents poured onto the casting-table.

My improvement consists, essentially, in transferring the pot from the furnace to a hydraulic lift or jack, which is placed adjacent to the furnace, then elevating said jack to the desired height, so that when the pot is so elevated it will be at a proper height to have its contents poured onto the casting-table. After the pot is elevated by the jack it is secured by chains or suitable means to an overhead stirrup, which is secured to bearings on a truck, which truck travels on a track, said track extending from a point near the furnace to the various casting-tables. There is also connected with the apparatus which I use in carrying out my method certain con-

structions which enable said method to be carried out.

In the drawings, Figure 1 is a general view, partially in section, showing furnace, hydraulic lift, casting-table, pot-carrier, and track extending from hydraulic lift to table. Fig. 2 is a perspective view showing carrier and mechanism to connect pot and carrier. Fig. 3 is an end view showing hydraulic lift, also carrier and mechanism to connect said carrier and the pot.

Similar letters denote similar parts.

A represents the ordinary melting-furnace.

B is the pot, in which the glass is placed and melted in the furnace A. The pot B, containing the molten glass, is, as shown, somewhat tapering, being larger in circumference at the upper than at the lower end. The pot is carried by the pot-holder or tongs, which consists of the ring C, which is of greater circumference than the smaller part of said pot, but of less size than the larger portion of said pot. At each side of said ring are the handles C' and C', which are connected to said ring. The ring is slipped over the pot and the pot carried to the hydraulic lift D, which is operated in the ordinary manner by piston D', a three-way valve d', pipes d³ and d⁴, and the operating-wheel D². The pot rests on the platform D³, and is lifted to the desired height by operating the jack.

E is the carrier or stirrup, the arms e⁵ e⁵ e⁵ of which are secured to bearings e on the axles e' e⁴. The wheels e² e² e² e² on said axles rest upon the track T. The portion e³ of said carrier E is internally threaded, and a threaded rod f passes through said internally-threaded portion e³, and also passes through the frame F, to which it is secured by nut f'. At the upper end of said rod f is the nut f². On each side of the frame F are the wheels or bearings f² f³, and surrounding said wheels or bearings are the chains f⁴ f⁵, which chains, when the pot B is elevated, are secured to rings c c' on the tongs. As may be seen, the pot is suspended at a point central to and below the axles e' e⁴.

G is the casting-table, where the glass is cast. The track T extends from the lifting-jack to the casting-table. As may be seen,

there may be a number of casting-tables, and I can use one lifting-jack so as to coact with all the casting-tables, the jack being placed near the furnace and the track T extending 5 from said jack to all of said tables. In case the height to which the pot has been elevated should not be absolutely correct when it reaches the casting-table it can be adjusted by turning the frame F, which will cause the 10 rod *f* to rise, lifting the pot slightly. Of course this would be used for very nice adjustments only. When the pot is brought in position over the casting-table, the pot is tipped and the molten glass poured upon the casting- 15 table.

Having now fully described my invention, what I claim, and desire to protect by Letters Patent, is—

1. In an apparatus for elevating and conveying molten glass from the furnace to the 20 casting-table, in combination, a pot which contains the molten glass, a hydraulic jack, an overhead carrier having a portion internally threaded, a frame, a threaded rod which passes 25 through said threaded portion of the carrier and said frame, connection between said frame

and the pot, and a track extending from the lifting device to the casting-table, upon which said carrier is adapted to move.

2. In an apparatus for elevating and conveying molten glass from the furnace to the 30 casting-table, in combination, a pot which contains the molten glass, a hydraulic jack, an overhead carrier having axles at its ends, upon which wheels are secured, the arms of said 35 carrier extending from said axles to a point central to and below said axles, the juncture of said arms being internally threaded, a frame, a screw-rod which passes through said threaded portion of the carrier and said frame, 40 a nut at the end of said rod, said frame being connected to the pot by flexible connections, and a track extending from said lifting device to the casting-table.

In testimony of which invention I have here- 45 unto set my hand, at New Albany, in the county of Floyd and State of Indiana, this 16th day of November, 1889.

FRANK SCHEFOLD.

Witnesses:

ANDROS HUNCILMAN,

G. W. RUNDELS.