

No. 633,190.

Patented Sept. 19, 1899.

A. S. GILMAN.

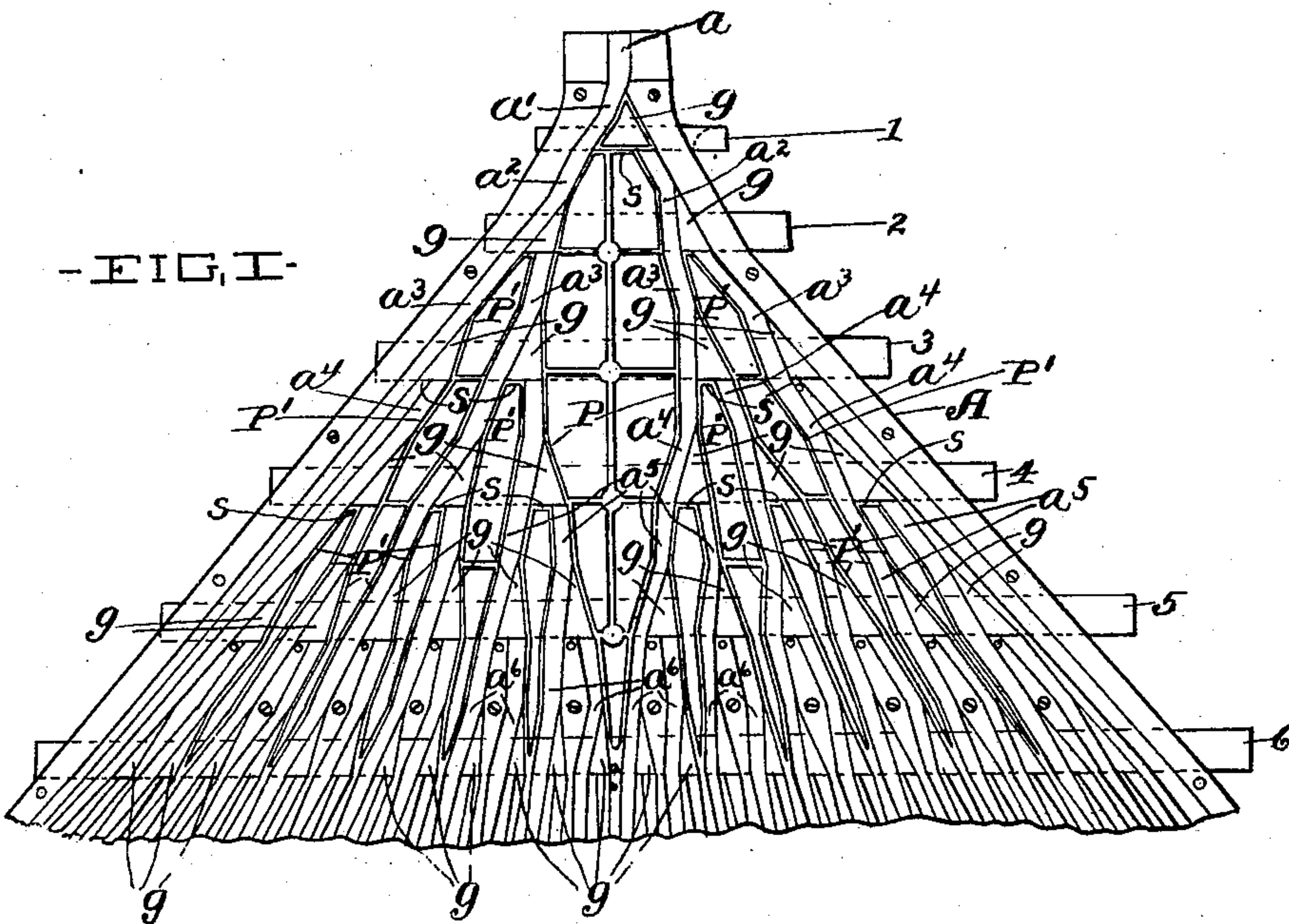
DISTRIBUTER OR ASSORTER FOR LINOTYPING MACHINES OR TYPE SETTING MACHINES.

(Application filed Sept. 1, 1898.)

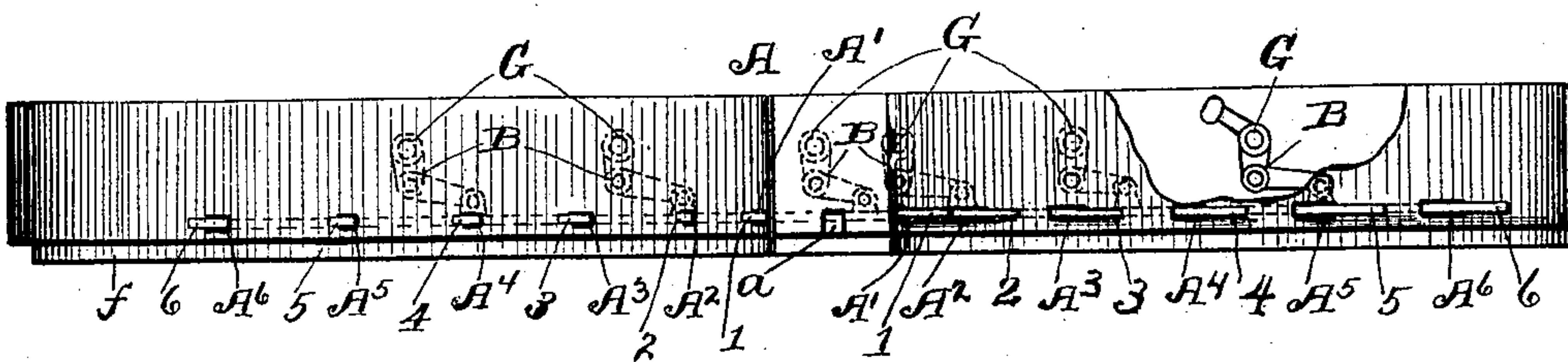
(No Model.)

2 Sheets—Sheet 1.

-FIG. I-



-FIG. II-



WITNESSES:

Daniel E. Daly.  
Victor C. Lynch.

INVENTOR

Arthur S. Gilman

BY

Lynch, Dorris & Donnelly,  
his ATTORNEYS

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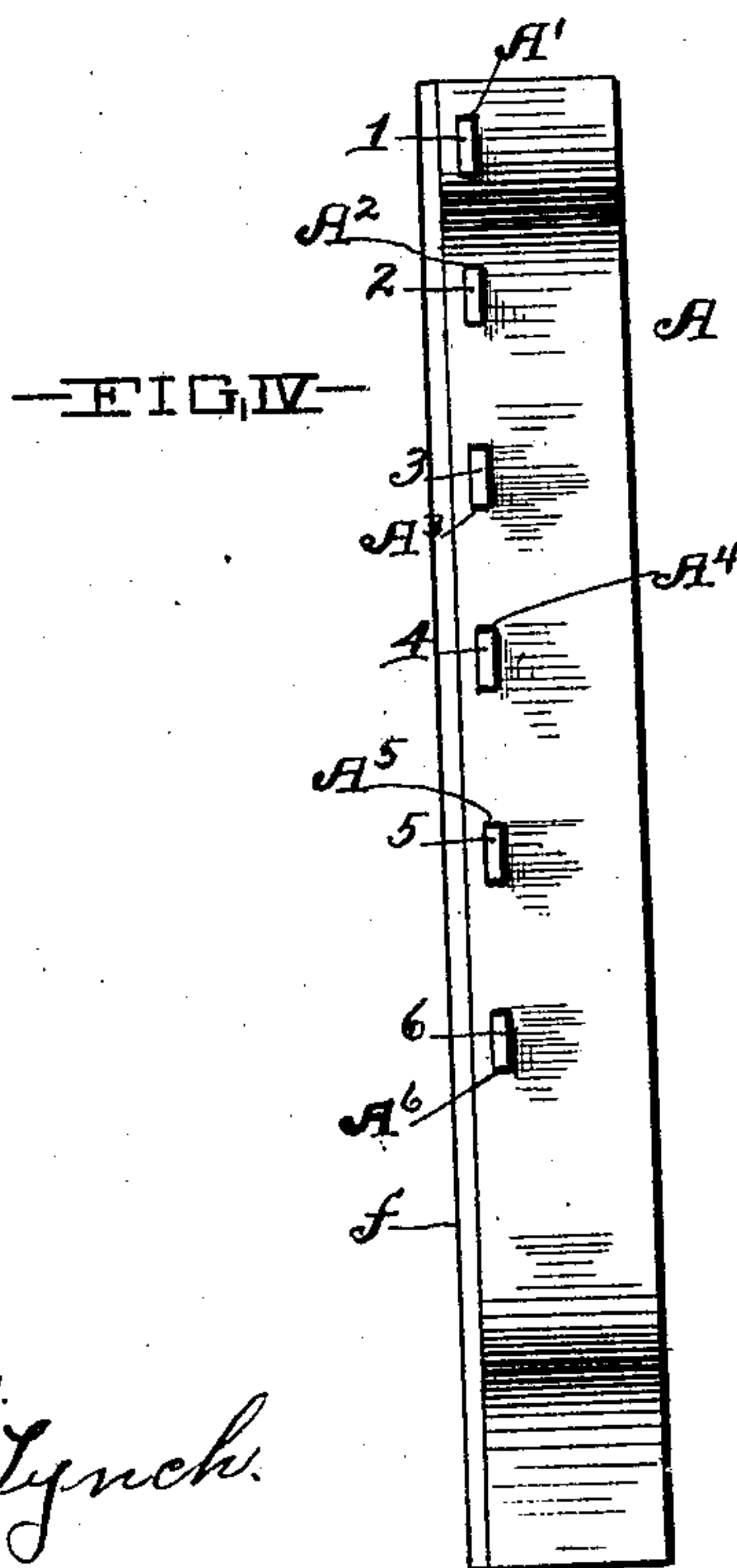
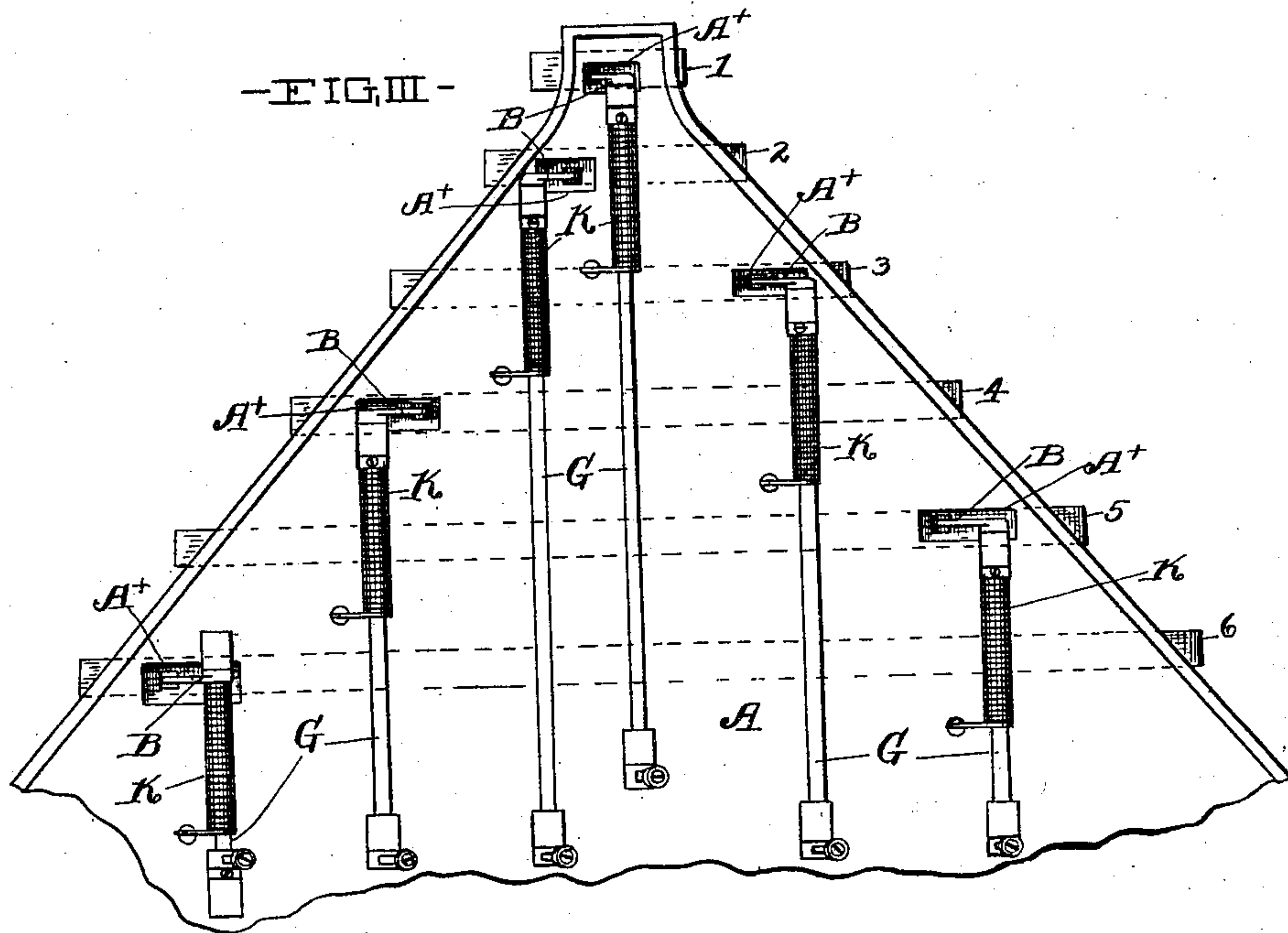
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Daniel E. Daly,  
Victor C. Lynch.

INVENTOR  
Arthur S. Gilman  
BY  
Lynch, Doran & Donnelly  
his ATTORNEYS



# UNITED STATES PATENT OFFICE.

ARTHUR S. GILMAN, OF CLEVELAND, OHIO.

DISTRIBUTER OR ASSORTER FOR LINOTYPING-MACHINES OR TYPE-SETTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 633,190, dated September 19, 1899.

Application filed September 1, 1898. Serial No. 689,976. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR S. GILMAN, of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful  
5 Improvements in Distributers or Assorters for Linotype-Machines, Type-Setting Machines, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled  
10 in the art to which it pertains to make and use the same.

My invention relates to improvements in distributers and assorters designed more especially for distributing and assorting mat-  
15 rices, type, &c., in or for linotype and type-setting machines; and the invention consists in certain peculiarities of construction and combination of parts hereinafter described, and pointed out in the claims.

20 In the accompanying drawings, Figure I is a front side elevation of a distributer or assorter embodying my invention. Fig. II is a top plan. Fig. III is a rear view. Fig. IV is an edge view.

25 My improved distributer or assorter comprises an upright back A, that is composed, preferably, of a metal plate. The back A is preferably triangular and has conveying channels or passage-ways formed upon its for-  
30 ward side. The distributer or assorter at its upper end is provided with a mouth or inlet  $a$ , at which the matrices, type, &c., that are to be distributed or assorted and conveyed to magazines (not shown) formed below the dis-  
35 tributer or assorter are introduced. The mouth or inlet  $a$  is formed at the upper end of and communicates with the uppermost upright conveying channel or passage-way  $a'$  of the distributer or assorter. Back A is pro-  
40 vided with horizontally-arranged sliding bars or slides 1, 2, 3, 4, 5, and 6, that engage different correspondingly-arranged slideways  $A^1, A^2, A^3, A^4, A^5$ , and  $A^6$ , respectively, formed in the back A at suitable intervals vertically.  
45 Each slide upon its forward side is provided with one or more gate-forming lugs  $g$ , and each gate of each slide projects forward into the downwardly-enlarged lower portion of and has a path or range of movement later-  
50 ally within a conveying channel or passage-way that is formed in any approved manner upon the forward side of the back A, as al-

ready indicated, and has its lower end con-  
nected with the upper ends of two similarly-  
shaped and downwardly-diverging channels 55  
or passage-ways, whereof the greater number  
have their lower portions enlarged down-  
wardly and engaged by gates formed upon  
another slide, and so on down to the lower-  
most slide—that is, each gate-bearing slide ex- 60  
tends across the rear side of one or more chan-  
nels and each gate is arranged to operate be-  
tween the opposing and downwardly-diverg-  
ing side walls of the lower enlarged portion  
of the respective channel and preferably 65  
rests or has bearing upon a shoulder or seat  
s, formed centrally of the lower end of the  
channel and between the two channels that  
lead and diverge downwardly from the said  
end. One of the downwardly-converging side 70  
walls of each gate-engaged channel forms a  
stop for limiting the reciprocation of the gate,  
and consequently the slide that bears the said  
gate in the one direction and the opposite side  
wall forms a stop for limiting the reciproca- 75  
tion of the gate-bearing slide in the opposite  
direction. Each gate in one of its positions  
interrupts communication between the gate's  
path and one of the passage-ways that lead  
and diverge downwardly from opposite ends, 80  
respectively, of the said path at opposite sides,  
respectively, of the gate's seat, and the gate  
in its other position interrupts communica-  
tion between said path and the other of the  
said passage-ways. Each gate is triangular 85  
and has its stop-engaging sides converge up-  
wardly to a point that is flush with and en-  
gages the one or the other stop-forming walls,  
according as the gate is actuated into the one  
or the other of its two positions, so as to avoid 90  
any obstruction or impediment in the pas-  
sage of a matrix or type into and through the  
open or free portion of the gate-containing  
channel into that one of the two downwardly-  
diverging channels that is in open relation 95  
with the said open portion of the gate-con-  
taining channel. Hence each one of the op-  
posite upwardly-converging sides of each gate  
is preferably parallel with the opposing wall  
of the two downwardly-diverging walls that 100  
bound the ends of the gate's path.

In Fig. I of the drawings it will be observed  
that  $a^1 a^2$  designate the two gate containing  
or conveying channels that lead and diverge



downwardly from the uppermost channel  $a'$ ,  
 $a^3$   $a^3$  the two channels that lead and diverge  
 downwardly from each channel  $a^2$ , and so on  
 down to the channel  $a^6$  or farther, as the case  
 5 may be.

Each gate-bearing slide is operatively con-  
 nected at its rear side by means of lever mech-  
 anism B with an upright oscillating shaft G,  
 that is suitably supported at the rear side of  
 10 and from the back A, and a spiral spring K,  
 coiled and confined upon the said shaft, acts  
 to retain the slide in one of the latter's two  
 positions, and the slide is consequently actu-  
 ated into its other position by oscillating the  
 15 said shaft against the action of the aforesaid  
 spring.

I would here remark that shafts G are auto-  
 matically actuated in any approved manner  
 by the matrices or type at or before the latter  
 20 is delivered to the distributor or assorter, and  
 this shaft-actuating mechanism, not forming  
 a part of my present invention, is not dis-  
 closed in this application.

It will be observed that in the case illus-  
 25 trated a matrix or type that is to be conveyed  
 to the channel  $a^6$  that adjoins the left-hand  
 side of the central partition P would require  
 the actuation of slides 2, 3, 4, and 5, and a  
 type or matrix that is to be conveyed to the  
 30 channel  $a^6$  that adjoins the right-hand side of  
 the said partition would require the actuation  
 of slide 1 only. The operation of the gate-  
 carrying slides will be readily understood  
 without further description or illustration.

35 The central partition P and also the larger  
 remaining partitions P' and uppermost gate  
 are made hollow for lightness and economy.

The back A is of course slotted or cut away,  
 as at A<sup>x</sup>, to accommodate the location and  
 40 operation of lever mechanisms B.

I would also remark that the forward side  
 of the distributing or assorting channels are  
 closed, preferably, by a glass plate. (Not  
 shown in Fig. I, but shown marked  $f$  in Figs.  
 45 II and IV.)

What I claim is—

1. In a distributor or assorter of the char-  
 acter indicated, the combination with upright  
 conveying-channels, of a suitably-operated  
 50 reciprocating bar, and a plurality of gates  
 operatively connected with the bar and ar-  
 ranged within and movable transversely of

the different channels, respectively, substan-  
 tially as set forth.

2. In a distributor or assorter of the char- 55  
 acter indicated, the combination with upright  
 channels, of a suitably-operated reciprocating  
 bar, and a plurality of gates operatively con-  
 nected with the bar and arranged to obstruct  
 one or the other side of the different chan- 60  
 nels, respectively, according as the bar is  
 moved into the one or the other of its two po-  
 sitions, and means acting to retain the bar in  
 one of the said positions.

3. In a distributor or assorter of the char- 65  
 acter indicated, the combination with upright  
 channels and an upright back or support hav-  
 ing horizontally-arranged slideways formed  
 at suitable intervals vertically; of the recip-  
 rocating slides engaging the slideways, and a 70  
 plurality of gates operatively connected with  
 each slide and engaging and movable trans-  
 versely of different channels, respectively,  
 substantially as and for the purposes specified.

4. In a distributor or assorter of the char- 75  
 acter indicated, the combination of an up-  
 right back or support provided with parallel  
 slideways arranged at suitable intervals; suit-  
 ably-operated endwise-shiftable bars or slides  
 engaging the different slideways, respec- 80  
 tively; channels extending transversely and  
 at one side of the aforesaid slideways, and a  
 plurality of gates carried by the aforesaid  
 slides and arranged within and movable trans-  
 versely of different channels, respectively. 85

5. In a machine of the character indicated,  
 the combination with a plurality of upright  
 channels; of a suitably-operated and suitably-  
 supported sliding bar at the rear of the chan-  
 nels, which bar is provided, upon its forward 90  
 side, with lugs projecting into the different  
 channels, respectively, and having the con-  
 figuration and arrangement required to ren-  
 der them capable of obstructing the one side  
 or the other side of the respective channel 95  
 according as the bar is shifted into the one  
 or the other of its extreme positions.

Signed by me at Cleveland, Ohio, this 20th  
 day of July, 1898.

ARTHUR S. GILMAN.

Witnesses:

C. H. DORER,  
 A. H. PARROTT.