G. T. TRUNDLE, JR.

COLUMN RULE.

APPLICATION FILED JAN. 2, 1917.

1,306,038. Patented June 10, 1919.

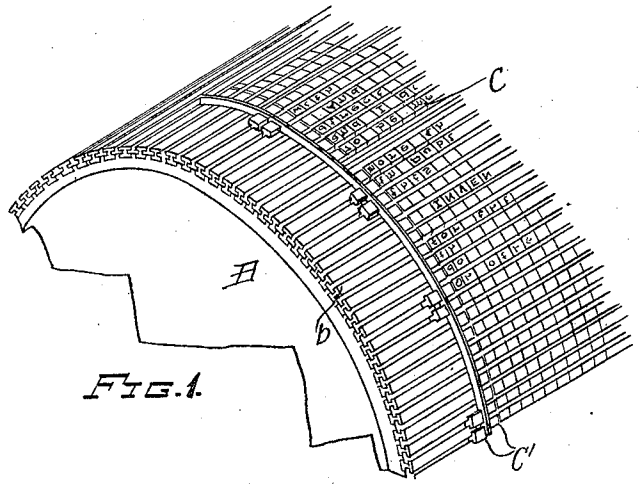


FIG. 1.

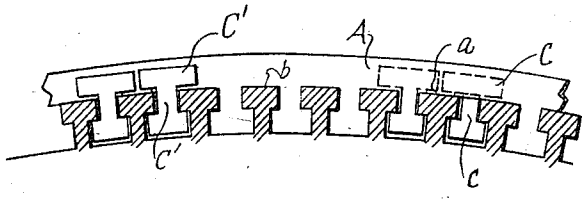


FIG. 3.

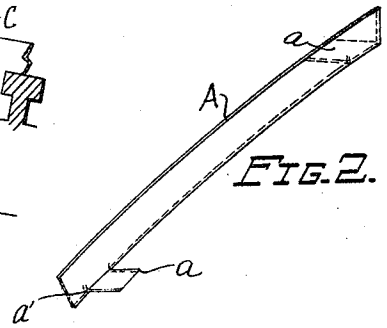


FIG. 2.

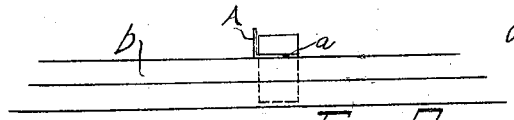


FIG. 4.

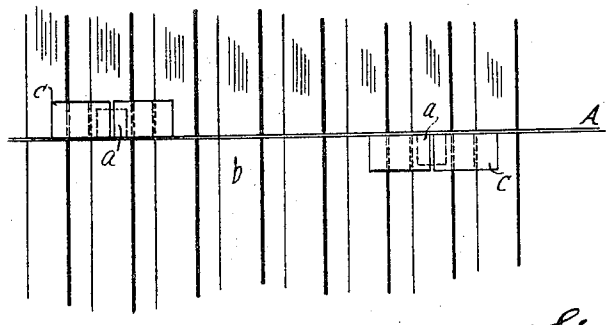


FIG. 5.

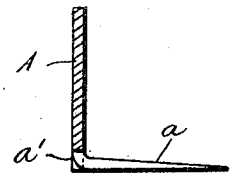


FIG. 6.

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THE WORKS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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COLUMN-RULE.

1,306,038. Specification of Letters Patent. Patented June 10, 1919.

Application filed January 2, 1917. Serial No. 140,028.

To all whom it may concern:

Be it known that I, GEORGE T. TRUNDLE, Jr., a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Column-Rules, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of this invention is to provide an effective column rule for short type assembled in a suitable holder. More particularly the invention relates to rules adapted for mounting on a member having rails with overhanging edges which hold between them grooved type.

The invention is especially well adapted for use with multigraph type of the form shown in Patent No. 836,026, and may be very conveniently employed when such type are mounted on a drum or segment rigidly carrying rails, like the structures shown in Patent Reissue No. 12,622 or No. 993,495, for example.

My column rule, briefly, comprises an arcual strip, preferably of metal, adapted to extend across various rails and stand above them "type-high," the strip being provided with laterally projecting tongues adapted to lie on top of rails and extend beneath the head of adjacent type bodies (printing type or quads), whereby it is retained against displacement. The tongues preferably extend at right angles to the general plane of the rule from the inner edge thereof.

I find that the ordinary looseness in grooved type, when mounted on rails, provide sufficient clearance so that the tongues, if made thin may project beneath the heads of adjacent type bodies. The ordinary quads have heads low enough so that they may receive beneath them tongues as thick as the width of the line to be printed by the rule. If desired, however, printing type may be made with special recesses beneath the heads adapted to receive these tongues. Accordingly, whether used with quads or such special type, it is entirely feasible to make the rule from a single piece of flat metal and turn out the lateral tongues from the same stock and have these tongues held beneath heads of type bodies. If the rule is to cooperate with ordinary grooved type on the drum a row of quads may be employed on each side of the rule.

It will be seen that such a rule as described may be put in place after the matter to be printed has been assembled on the drum or holder, it being simply necessary to separate the lines slightly where the rule is to go, then insert the rule, and then compress the lines against the rule and block their ends by the usual fastening devices.

The invention is illustrated in the drawings hereof and is hereinafter more fully described and the essential characteristics set out in the claims.

In the drawings, Figure 1 is a perspective view of a portion of a segment or drum having one of my column rules and type matter thereon; Fig. 2 is a perspective view of the column rule itself on an enlarged scale; Fig. 3 is an enlarged vertical section through a portion of the drum parallel with the column rule mounted thereon; Fig. 4 is a detail being a cross section of the rule in place on the drum; Fig. 5 is a development of a portion of the drum with my rule mounted thereon. Fig. 6 is an enlarged cross section of the rule illustrating the tapering which may be given to the tongues.

Referring by letters to the parts shown in the drawing, A represents the arcual body portion of the rule, and *a* the laterally projecting tongues. B indicates the type-holding drum or segment, C printing type thereon, and C′ quads. The radial dimension of the body portion is considerably greater than the thickness of the printing edge so that the rule may be said to stand on edge. The tongues project from the rule adjacent to its inner edge at right angles to the rule. These tongues are preferably integral portions of the rule bent laterally from it. Before they are bent, short radial incisions *a′*, somewhat greater in length than the thickness of the metal of the rule, are made in the inner portion of the rule body at each side of the tongues so that the tongues may be bent out and have their inner surface part of the same theoretic cylinder as the inner edge of the rule body. These tongues occur only at spaced intervals and are adapted to lie on top of some of the rails *b* of the segment B. The distance between the centers of the successive teeth is a multiple of the distance between the centers of successive rails. The teeth thus lie on top of occasional rails while the arcual edge of the rule body lies on top of intermediate rails.

The tongues *a* may be tapered or thinned toward their ends as shown in Fig. 6 so that they may more readily pass into the space beneath the heads of the type bodies. When in place the rule body is abutted on opposite sides by the type bodies C′. It is held down on the drum or holder by the heads C of these type bodies, holding the tongues against the tops of the rails, and it is held against arcual shifting by reason of the tongues occupying the confined space between the shanks C′ of adjacent type bodies. Any material arcual shifting in one direction or the other would bring the tongues into contact with shanks of the type bodies and prevent further shifting.

It will be seen that my column rule is very cheap and simple in construction that it may be readily put into place or removed when desired, and when in place will effectively print a column line. The rule is thin enough so that it may be formed in the maximum length desired and cut to various shorter lengths as required in usage.

It should be noted particularly that the rule may be put into place between type matter after the same has been assembled on the drum. In assembling the matter it is very convenient to assemble two columns of quads wherever a rule is to be placed and then after the assemblage, slightly spread the matter between these two columns, place the rule, and close up the gap, bringing the quad bodies tightly against the sides of the rule, some of these bodies overhanging the tongues and holding the rule in place.

Having thus described my invention, what I claim is:

1. A column rule consisting of a thin arcual strip having thin lateral tongues projecting from the strip adjacent to the concave edge at right angles to the body of the strip, the inner surface of said tongues engaging substantially the same theoretic cylinder as the concave edge of the strip, and the tongues extending only a short distance lengthwise of the strip, whereby they may lie between shanks of type in adjacent lines.

2. A column rule consisting of an arcual strip having comparatively narrow tongues projecting laterally from the side of the strip adjacent to the inner edge, said tongues being gradually tapered or thinned toward their ends.

3. The combination of a type holder having grooved rails, type bodies held in channels between the rails and having heads overhanging the tops of the rails, and a rule strip resting on the rails and having tongues resting on top of some of the rails and extending beneath the heads of type bodies adjacent to the rule.

4. The combination with a type holder having parallel overhanging rails, grooved type bodies mounted in the channels between said rails and having heads overhanging the tops of said rails, and a column rule consisting of a strip standing on edge on various rails and having laterally extending tongues lying on top of the rails and extending beneath the heads of a pair of adjacent bodies respectively on opposite sides of the rails on which the tongues lie.

5. The combination of a type holder having grooved parallel longitudinal rails arranged about an axis, a thin arcual strip extending transversely of said rails and resting thereon, said strip having thin tongues turned laterally from its inner edge and resting on the tops of some of the rails, and type bodies on the opposite sides of those rails on which the tongues rest, said type bodies having heads overhanging the tongues.

6. In a duplicating machine, the combination of a rotary printing drum having a plurality of undercut channels in its periphery, grooved type occupying said channels, and a rule strip having a printing surface curved in concentric relation with said drum and held between said type, and having tongues on the outer side of the drum and each held by engagement beneath a type head.

7. The combination with a segmental holder for type consisting of parallel overhanging rails rigidly held equi-distant about an axis, type bodies mounted between said rails grooved on their opposite sides and having overhanging heads, and a column rule consisting of a strip curved in concentric relation with said segment and extending crosswise of the rails and resting on their outer surface, said strip having thin tongues extending from opposite sides thereof at right angles to the strip, each tongue lying on top of a rail and beneath the heads of a pair of type bodies in the channels on opposite sides of such rail.

8. The combination with a type holder having grooved parallel rails and grooved type bodies held in channels between the rails, their heads overhanging the tops of the rails, said type bodies including printing type and non-printing quads, and an arcual rule strip extending transversely of the rails and resting on top of them and having laterally projecting tongues which are thinner than the difference in height of the heads of the quads and printing type, said tongues extending beneath the heads of adjacent quads.

9. The combination, with a type holder having grooved parallel rails arranged to lie equi-distant about an axis, of a column rule comprising an arcual strip adapted to rest on the tops of said rails, said strip having a tongue projecting directly from it at the inner edge at right angles to the body of the strip, the dimension of said tongue

lengthwise of the strip being no greater than the distance across a rail head.

10. The combination of a type holder having grooved parallel rails adapted to hold parallel lines of grooved type, and a rule strip extending transversely of said rails, said strip having tongues extending directly from its inner edge and resting on the top of said rails, said tongues being no longer lengthwise of the rule than the transverse dimension of a rail head and being thin enough to be overhung by the head of a type body carried by a pair of adjacent rails.

In testimony whereof, I hereunto affix my signature.

GEORGE T. TRUNDLE, JR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."