

No. 755,610.

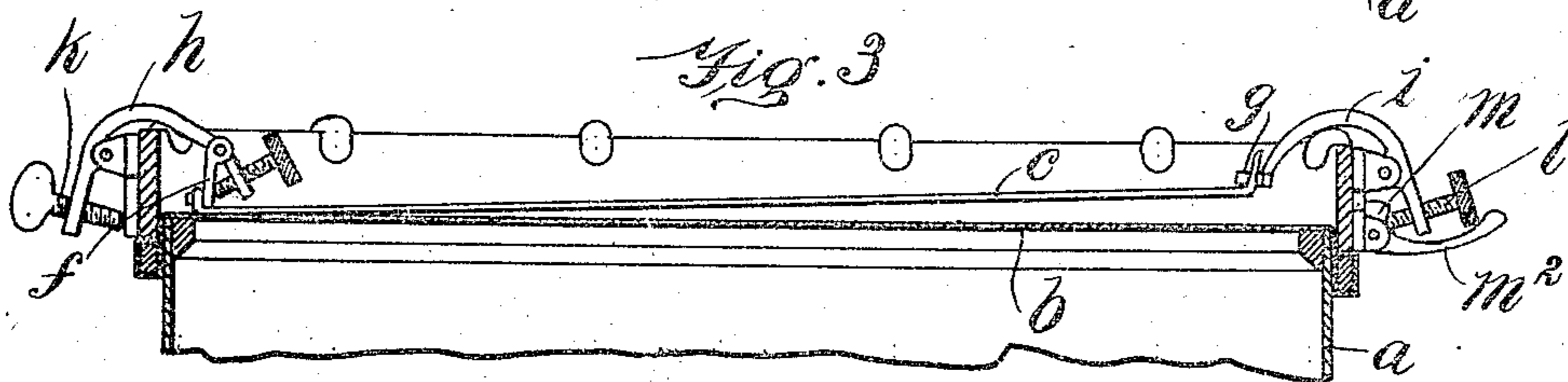
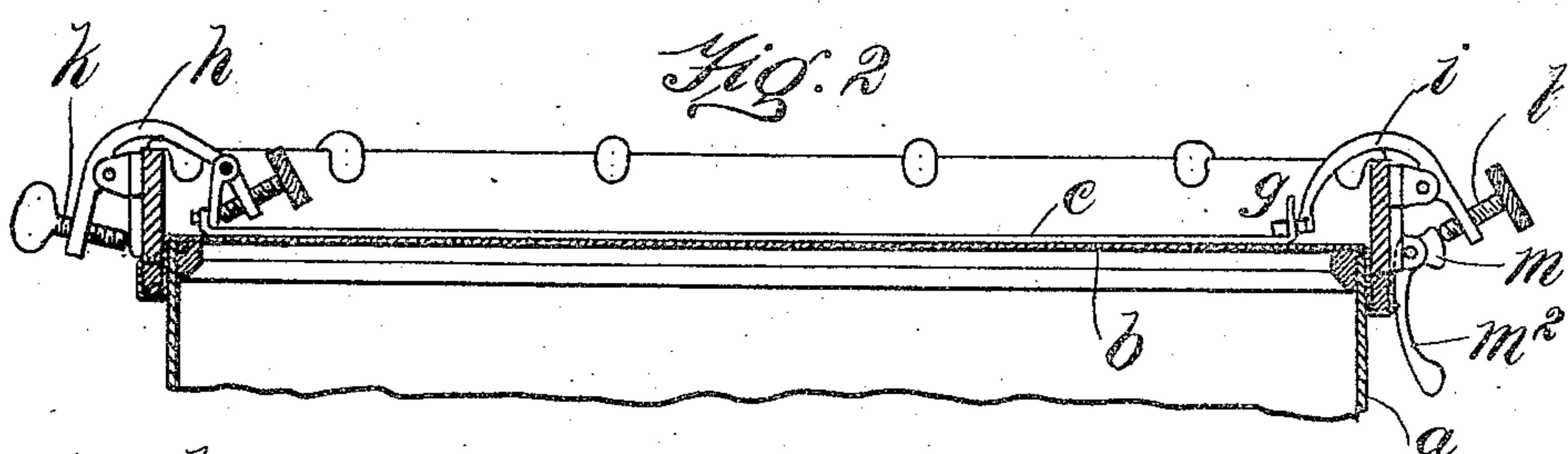
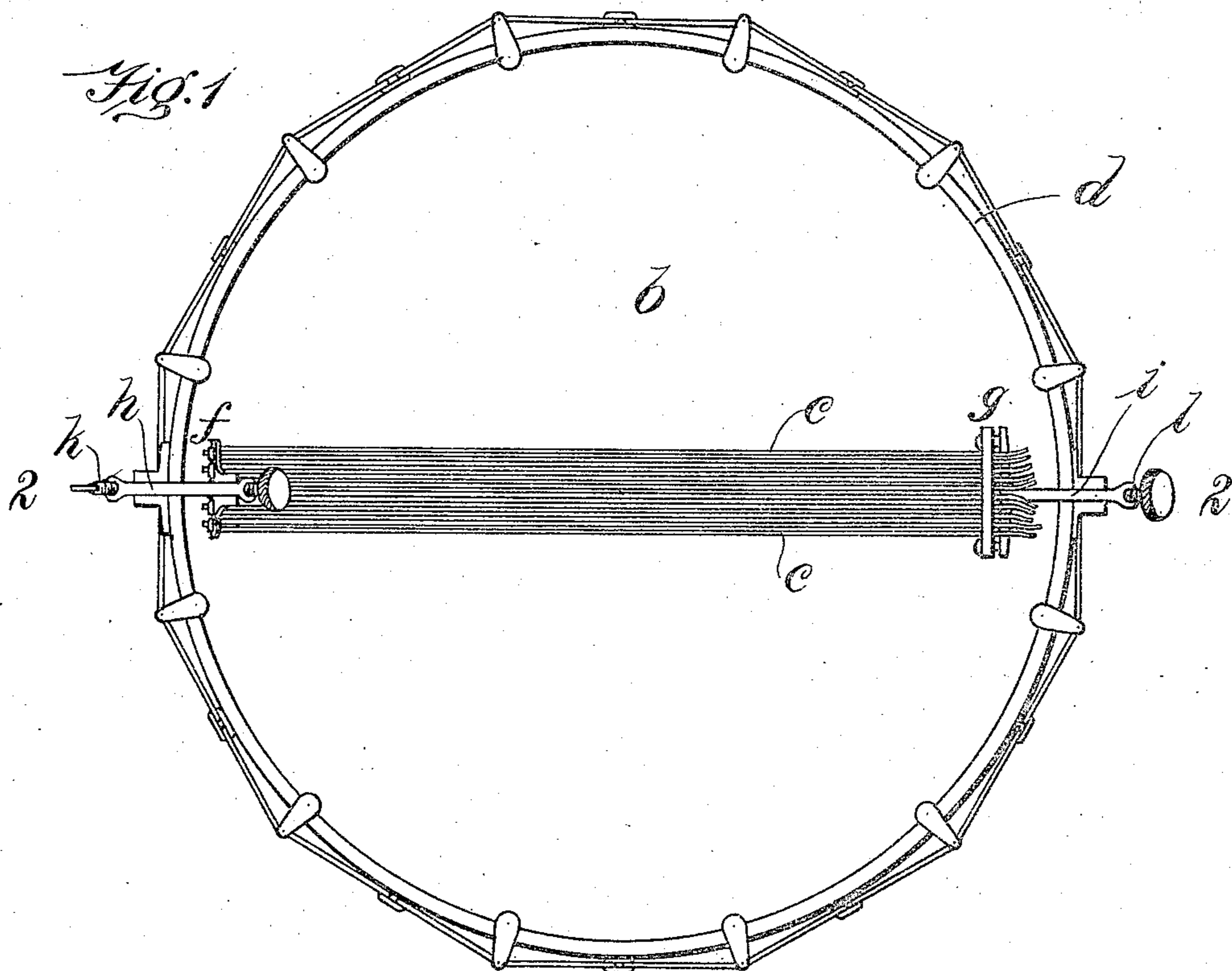
PATENTED MAR. 29, 1904.

H. A. BOWER.
SNARE DRUM.

APPLICATION FILED OCT. 24, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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No. 755,610.

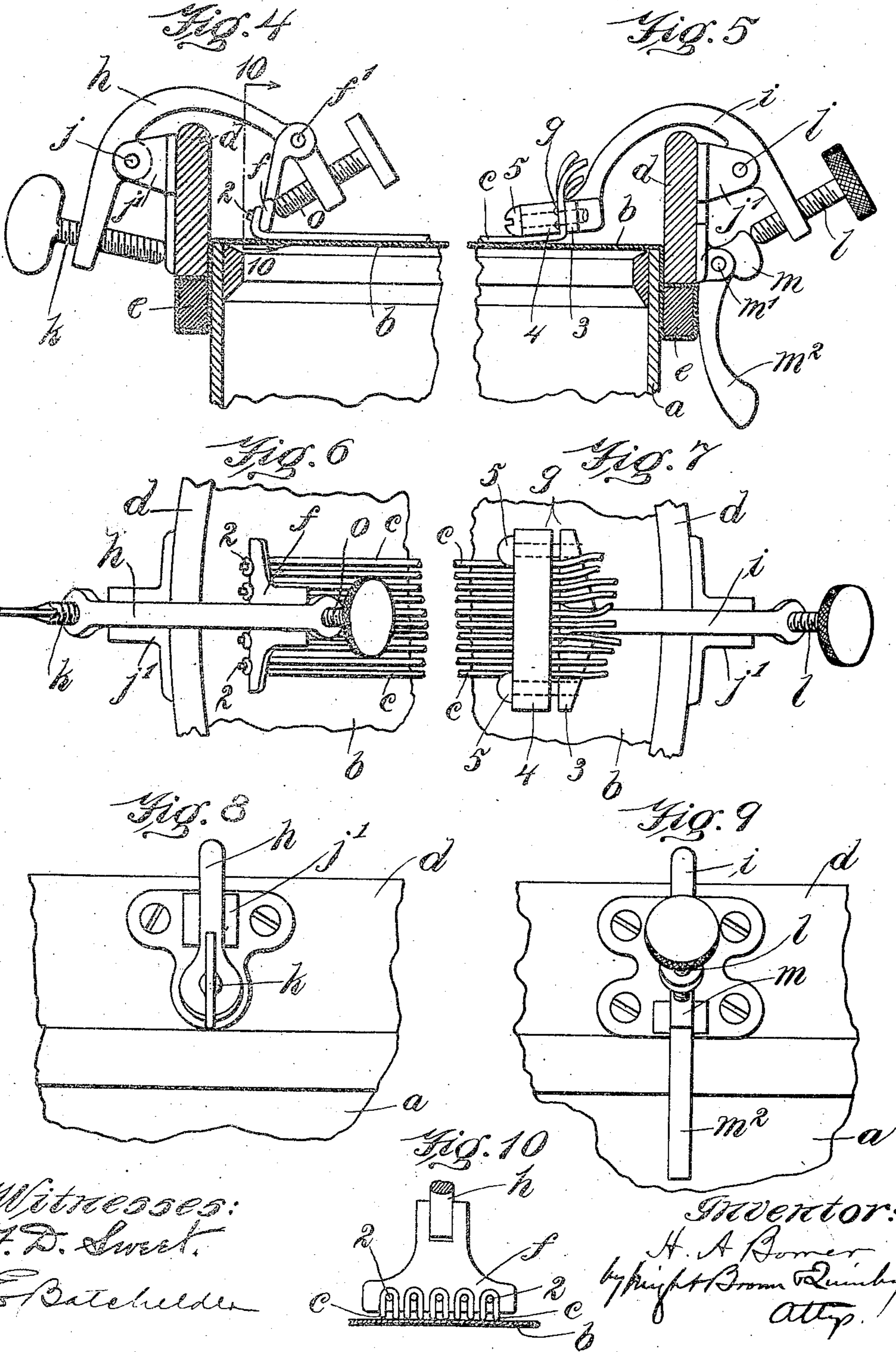
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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

HARRY A. BOWER, OF BOSTON, MASSACHUSETTS.

SNARE-DRUM.

SPECIFICATION forming part of Letters Patent No. 755,610, dated March 29, 1904.

Application filed October 24, 1903. Serial No. 178,314. (No model.)

To all whom it may concern:

Be it known that I, HARRY A. BOWER, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Snare-Drums, of which the following is a specification.

This invention has relation to drums, and has for its object to provide means for holding the snares on the drum-head in such manner that the said snares may be accurately adjusted, first, as to their pressure upon the head, and, second, as to their tension, so that the pressure may be increased or decreased independently of the tension and the tension may be increased or decreased independently of the adjustment of the snares toward and from the head.

Heretofore it has been the custom to cut away the upper edge of the shell of the drum at diametrically opposite points to form a "bed" (so called) for the snares, and thereby bring the snares as closely as possible to the center of the head and also to adjust the snares toward and from the center by varying their tension. This formation of the bed destroys the sensitiveness of the head at its center. Again, in prior constructions it has been generally customary, in addition to the formation of the bed, to engage the snares between the strain-hoops and the end of the shell and the skin-hoop. It has been, however, exceedingly difficult to keep the drum in pitch and to adjust the snares with relation to the center of the head and yet keep them in proper pitch. Hence another object of the invention is to provide snare-supporting devices which may be bedded directly against a yielding portion of the head, inward from the shell, with adjusting means by which the devices may be adjusted toward and from the head, thereby permitting the employment of a shell having an unbroken upper edge over which the head may be stretched to render it sensitive to the slightest vibration.

Still another object of the invention is to provide means whereby the snare supporting and stretching members may be themselves supported upon the strain-hoops, so as to obviate the necessity of passing the snares be-

tween the strain-hoop and the shell, as has been almost universally the custom followed by manufacturers of drums, except in some instances, where it has been proposed to pass the snares through holes in the hoops.

A still further object of the invention is to provide means which can be quickly manipulated or operated for muffling the drum without increasing the tension on the snares, as by inserting an implement or damper between the snares and the head. In carrying out this last-named object there is a still further object in view—to wit, to provide for muffling the drum by a device located on the exterior of the barrel, where it is convenient of access.

The manner in which I attain the objects of the invention is hereinafter fully set forth, there being illustrated upon the drawings a drum equipped with one embodiment of my invention.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents an end view showing the lower end or head of a drum provided with my improvements. Fig. 2 represents a section on line 2 2 of Fig. 1. Fig. 3 represents a view similar to Fig. 2, showing the drum muffled. Figs. 4 and 5 represent enlargements of portions of Fig. 2. Figs. 6 and 7 represent enlargements of portions of Fig. 1. Figs. 8 and 9 represent side elevations of portions of the exterior of the drum. Fig. 10 represents a section on line 10 10 of Fig. 4 looking toward the right.

The same reference characters indicate the same parts in all the figures.

In the drawings, *a* represents the shell of a snare-drum.

b represents the lower head, and *c c* represent the snares.

d represents the external ring or hoop, between the inner surface of which and the shell the marginal portion of the head *b* is clamped, said marginal portion being further secured by the cooperation with the shell and the hoop *d* of the usual skin-hoop *e*. The shell and the strain-hoops constitute the barrel of the drum.

In carrying out my invention I provide two snare-holding members *f* and *g*, which are lo-

cated outside the head *b* and within the circle of the hoop *d*. Said members are adapted to engage and support the ends of the snares and are supported from the hoop *d* by suitable connections between the said members and hoop. In the present embodiment of my invention the said members include curved or arched arms *h* and *i*, which are hinged or pivoted at *j j'* to ears or brackets *j' j''*, affixed to the exterior of the hoop *d*. The member *f* is an arm having studs or pins 2 2, each adapted to enter a bight formed by doubling a length of snare material, said length forming two snares, which normally lie parallel with the head. The member *g* is formed as a clamp having the parts 3 and 4, between which the end portions of said lengths are grasped, the said parts being connected by screws 5 5. The arm *h* is provided with a bearing-screw *k* and the arm *i* with a bearing-screw *l*, said screws being adjustable and serving to swing the arms on their pivots, and thus move the members *f* and *g* slightly toward or from the drumhead *b*, thus varying the pressure of the snares on the head. The screw *k* bears on the hoop *d* or on the shank of one of the brackets *j'*. The screw *l* bears on a movable abutment *m*, which is pivoted at *m'* and is provided with a handle *m''*, whereby the abutment *m* may be displaced to permit the arm *i* to be swung by the tension of the snares to the position shown in Fig. 3. The snares are thus removed from operative contact with the drumhead, and the drum is therefore muffled. When the abutment *m* is returned to the position shown in Figs. 2 and 5, it causes the restoration of the snares to their operative position.

Means are employed for varying the distance between the members *f* and *g* in a direction substantially parallel with the plane of the head, and thus varying the tension of the snares. In this embodiment of my invention this variation is permitted by hinging the member *f* to the arm *h* at *f'* and providing the arm with an adjusting-screw *o*, which bears against the member *f*. The screw *o* is arranged so that the tension of the snares holds the member *f* against it. Hence by adjusting the screw the member *f* may be swung toward or from the member *g*, thus decreasing or increasing the tension of the snares.

Heretofore the ends of the snares have been clamped and frictionally held between the shell *a* and the hoops *d* and *e*. It is difficult to adjust, remove, and replace snares thus fastened and also to keep them properly tensioned. My improvement provides for the positive engagement and holding of the snares at points outside the head and in such manner that the various adjustments above described can be readily effected. By reason of the said adjustment the tension of the snares may be increased or decreased independently

of the adjustment of said snares toward and from the head.

Among the most important of said advantages is the following: The hoop *d* has to be adjusted edgewise inwardly on the shell *a* from time to time to take up the slack of the head as the latter stretches. The pivotal connection of the arms *h* and *i* to the hoop and the adjusting-screws *k l* cooperating, as described, with the arms enables the snare engaging and stretching members to be adjusted outwardly to compensate for the inward adjustment of the hoop, so that the operative relation of the snares to the head may be preserved regardless of the extent of inward adjustment of the hoop. The life and durability of the drum is therefore practically everlasting. Heretofore the life of a snare-drum depended upon the inward adjustment of the strain-hoops, and if the drumhead was of a texture adapted to be easily stretched the strain-hoop would soon come in contact with and crush the ends of the snares between it and the shell, thus making it necessary to take the drum apart to soak the head, to tuck the latter on the skin-hoop, and then to put the drum together. After this operation it takes about a month, usually, to get the drum into good condition. After a drum has been used for some time, the heads well knit together, and the stretch removed therefrom, it should sound its best, and consequently with my invention the drum may remain in excellent condition so long as the heads last, since the adjustment of the heads to increase their tension cannot injure the snares, and, again, according to my invention the snares may be removed and others inserted in their stead without varying the tension upon or removing the head.

Still another feature of advantage of my device arises from the fact that the snare-supporting members are located radially inward from and within the shell, so that the ends of the snares are bedded against the head. By reason of this construction the middle portions of the snares, after having been brought to proper pitch, may be adjusted toward and from the head, so that their middle portions, which are the most sensitive, may be caused to hug and remain in contact with the head, at the center thereof. This adjustment of the snares, so as to bring their middle portions in contact with the center of the head, causes the snares to respond to the slightest or greatest vibration of the upper head without spoiling the tone of the drum. In drums where the snare-bed is provided by cutting away the edge of the shell it required much skill and experience to produce even a partially satisfactory tone effect. The shape of the snare-bed regulated the sensitiveness of the snares, and it has been practically impossible to cut a snare-bed so that the snares will operate perfectly at all times with all kinds of soft and loud manipu-

lations characteristic to a snare-drum, whereas a drum equipped with my invention may be used to produce effects which have been heretofore practically impossible under all atmospheric and thermal conditions.

As previously referred to, it is not possible with drums as heretofore constructed to muffle the drum having the usual snares without placing a handkerchief or suitable contrivance between the snares and the head to prevent them from impinging upon the head when the latter vibrates, although, of course, it is possible to loosen the snares so as to decrease their tension—a proceeding which is impracticable. In my drum, on the contrary, a movement of the lever instantly throws the snares away from the head without destroying their adjustment as to tension when the snares are again brought in contact with the head. This provides for a perfect muffling of the drum, since the snares leave the entire drumhead simultaneously. A simple manipulation of the lever throws the snares into operative position.

I claim—

1. A drum having snares stretched across the head and snare-engaging members located outside the head and connected with the external hoop of the drum.

2. A drum having snares stretched across the head thereof, snare-supporting members located outside of the head and connected to the hoop, and means for adjusting said members to vary the tension of said snares.

3. A drum having snares stretched across the head thereof, and snare supporting and stretching members supported on the exterior of the drum and bedded against yielding portions of the head at points radially inward from the shell.

4. A drum having snares stretched across and outside of the head, snare-supporting members located within the circle of the strain-hoop and outside of the head, and means for moving one of said members toward and from the others.

5. A drum having snares stretched across the head, snare-supporting members located within the circle of the strain-hoop, and arms pivoted on the exterior of the said hoop and arched over the end thereof to support said members.

6. A drum having snares stretched across the head, snare-supporting members located within the circle of the strain-hoop, arms pivoted on the exterior of the said hoop and arched over the end thereof to support said members, and means for adjusting one of said arms about its pivot.

7. A drum having snares stretched across the head, snare-supporting members located within the circle of the strain-hoop, and arms secured to the exterior of the barrel and reaching over the strain-hoop, skin-hoop and the edge of the shell, to support the members.

8. A drum having extensible snares, means

for securing the snares at one end, a member to which the snares are attached at the other end, means for adjusting said member longitudinally of the snares to vary the tension thereof, and means for adjusting said member toward and from the head without varying the tension of said snares.

9. A drum having extensible snares stretched across the head thereof, means for varying the tension of said snares, and means independent of the first said means for adjusting said snares toward and from the drum-head without varying the tension of said snares.

10. A drum having snares across the head thereof, a member engaging the snares at one end, a member engaging the snares at the other end, means for moving one of said members to stretch the snares, and independent means for moving one of said members to carry the snares at one end toward and from the head.

11. A drum having snares stretched across the head, snare-engaging members located outside the head for the ends of the snares, and means for outwardly displacing one of said members to separate the ends of the snares carried thereby from the lower head and to muffle the drum.

12. A drum having snare-engaging members located within the circle of the strain-hoop, hinged arms supporting said members and arching the hoop, and adjusting-screws adapted to vary the positions of said arms to move said members toward and from the plane of the head.

13. A drum having an arm supported by the lower hoop, a snare-engaging member hinged to said arm, and means for adjusting said member about its pivot relatively to the arm, the drum having also suitable means for engaging the opposite ends of the snares.

14. A drum having an arm hinged to the strain-hoop and provided with an adjusting device and with a snare-engaging member adjustable by said device relatively to said arm, the drum having also suitable means for engaging the opposite ends of the snares.

15. A drum having an arm supported by the lower hoop and provided with a snare-engaging member located at the inner portion of said arm, and an abutment for the outer portion of the arm, said abutment being movable to permit the displacement of the arm and the separation of the snares from the lower head, the drum having also suitable means for engaging the opposite ends of the snares.

16. A snare attachment for drums comprising a bracket adapted for engagement with the exterior portion of the drum, an arm pivoted between its ends to said bracket and bent so as to arch the end of the hoop, a snare-engaging member on one end of the arm, and an

adjusting device on the other end of said arm to adjust said arm about its pivot.

17. A snare attachment for drums comprising a bracket adapted for engagement with the exterior portion of the drum, an arm pivoted between its ends to said bracket and bent so as to arch the end of the hoop, a snare-engaging member adjustably mounted on said arm, means for adjusting said member on said arm, and means for adjusting said arm about its pivot relatively to said bracket.

18. A snare attachment for drums comprising a bracket adapted for engagement with the exterior portion of the drum, an arm mounted on said bracket and carrying a snare-engaging member, means for adjusting said arm relatively to said bracket, and means independent of said adjusting means for moving said arm relatively to said bracket.

19. A drum having snare-engaging members located outside the lower head and within the circle of the lower hoop, one of said members having pins to engage bights in the strings forming the snares, while the other member is formed as a clamp to engage the end portions of said snares, and arched connections between said members and the lower hoop of the drum.

20. A drum having snares stretched across

its lower head, a snare-engaging member located outside the lower head and within the circle of the hoop and formed as a clamp adapted to grasp the snares, the drum also having suitable means for engaging the opposite ends of the snares, in consequence of which said snares are stretched between said members.

21. A drum having snares stretched across the head thereof and a muffling device supported upon the exterior of the barrel and having provisions in consequence of which a movement of said device effects a movement of the snares away from the head, substantially as described.

22. A drum having extensible snares stretched across the head thereof, a snare-supporting member, and a muffling-lever supported upon the exterior of the drum-barrel and adapted when operated to effect a movement of the said snare-supporting member bodily outward from the head.

In testimony whereof I have affixed my signature in presence of two witnesses.

HARRY A. BOWER.

Witnesses:

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E. BATCHELDER.