

No. 614,694.

E. BOULANGER.

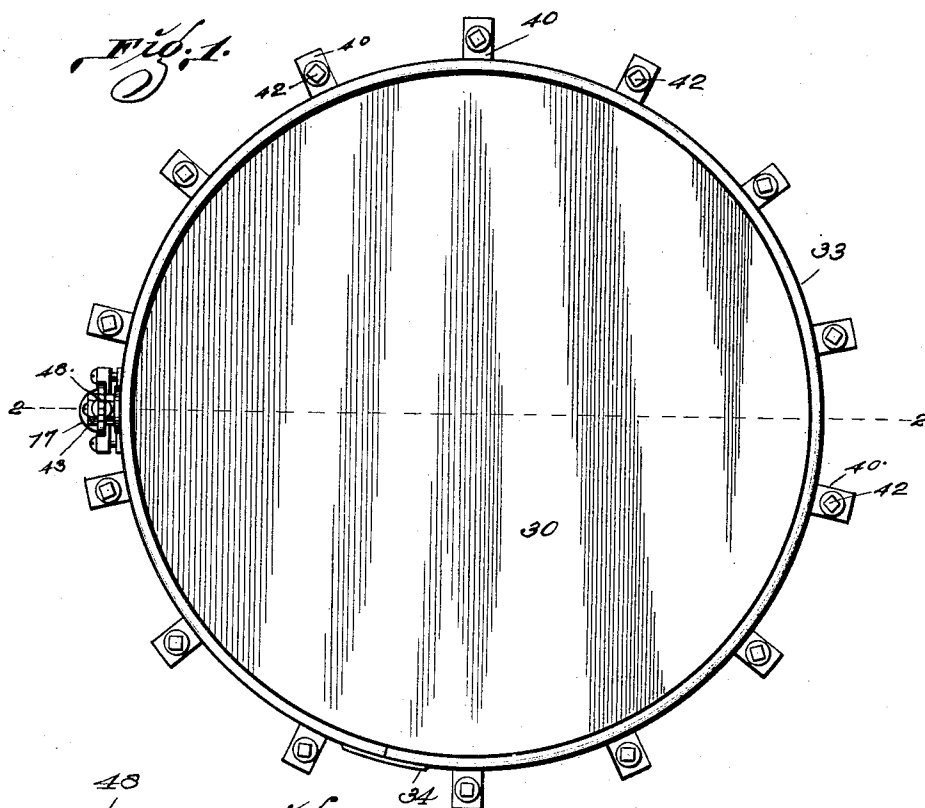
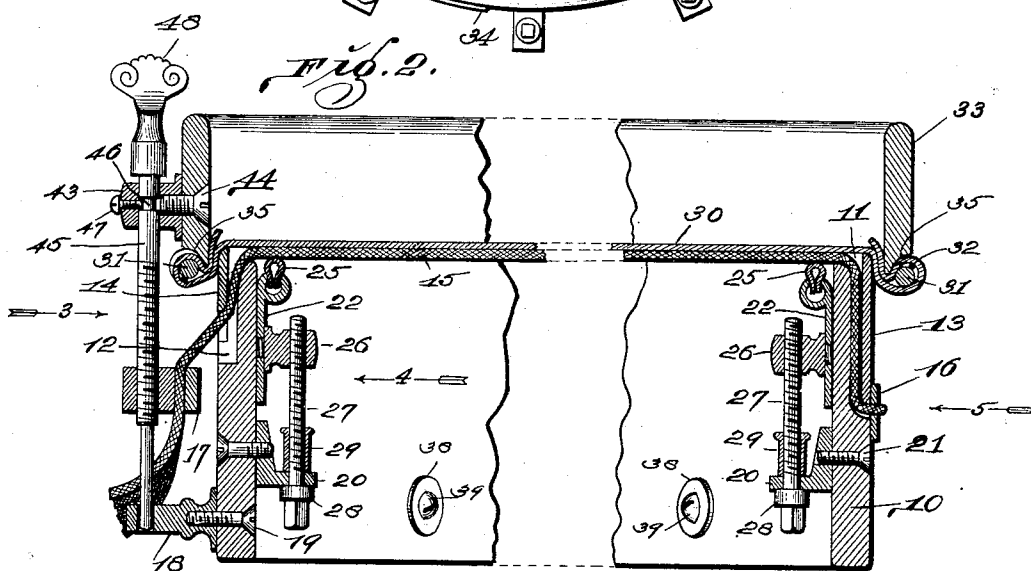
Patented Nov. 22, 1898.

DRUM.

(Application filed Aug. 31, 1897).

(No Model.)

2 Sheets—Sheet 1.



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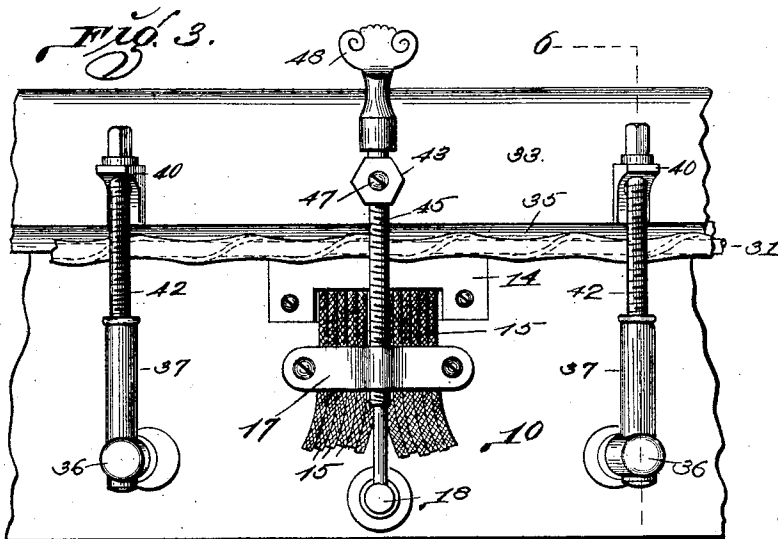
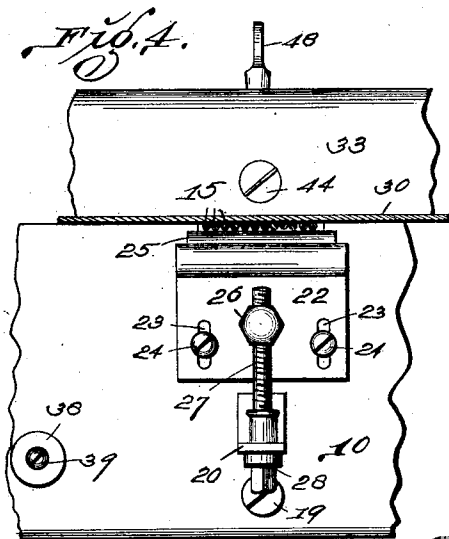
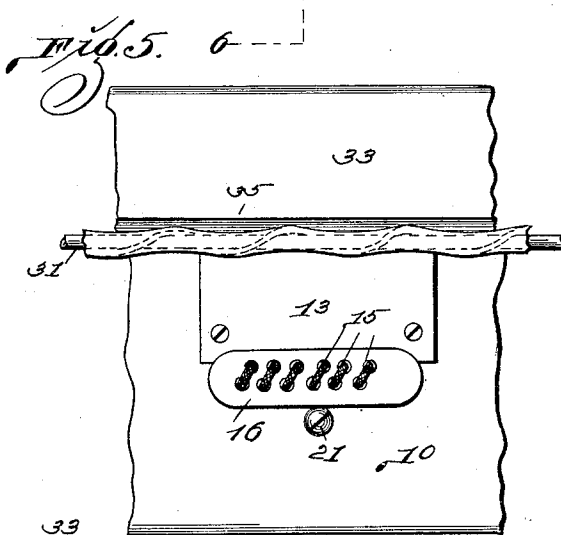
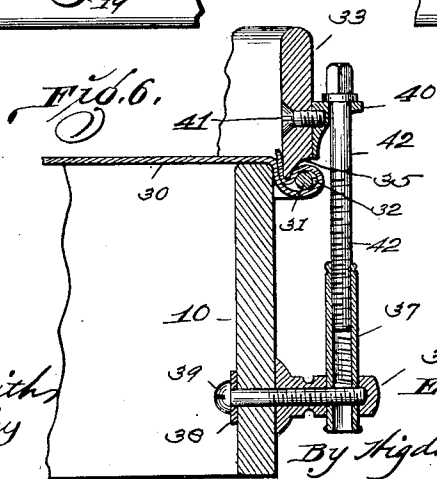
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(No Model.)

2 Sheets—Sheet 2.



Attest
W. P. Smith
C. W. Cauley

Inventor:
Emile Boulanger:
By Higdon, Logan & Higdon
Attys.

UNITED STATES PATENT OFFICE.

EMILE BOULANGER, OF ST. LOUIS, MISSOURI.

DRUM.

SPECIFICATION forming part of Letters Patent No. 614,694, dated November 22, 1898.

Application filed August 31, 1897. Serial No. 650,209. (No model.)

To all whom it may concern:

Be it known that I, EMILE BOULANGER, of the city of St. Louis, State of Missouri, have invented certain new and useful Improve-
5 ments in Drums, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to drums; and it consists of the novel construction, combination,
10 and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a plan view. Fig. 2 is a section taken approximately on the line 2 2 of Fig. 1,
15 parts being broken away to economize space. Fig. 3 is a view in elevation, taken looking in the direction indicated by the arrow 3 in Fig. 2, parts being broken away. Fig. 4 is a view in elevation, taken looking in the direction indicated by the arrow 4 in Fig. 2, the
20 batter-head and snares being shown in section. Fig. 5 is a view in elevation, taken looking in the direction indicated by the arrow 5 in Fig. 2. Fig. 6 is a cross-section
25 through the drum-shell and taken approximately on the line 6 6 of Fig. 3.

Referring by numerals to the drawings, the drum shell or casing 10 is constructed of wood and is thick and rigid. A recess 11 is formed
30 in the shell 10 from its outer face and upper edge, said recess extending from above the center of the shell upwardly and approximately half-way through the shell. A similar recess 12 is formed in the opposite side of
35 the shell. A metallic plate 13 is embedded in the shell 10 to cover the recess 11, the upper edge of said plate being on a level with the upper edge of the shell and the lower edge of said plate extending nearly to the lower
40 end of the recess. A similar metallic plate 14 is embedded in the shell to cover the recess 12. The snare-strings 15 are inserted through the section of leather 16 and then back again, said section 16 being located ap-
45 proximately at the center of the strings. Then the strings are inserted in the recess 11, with the leather section 16 engaging the outer face of the plate 13 and the outer face of the shell 10, and said snare-strings extend dia-
50 metrically across the shell and downwardly through the recess 12 and between the plate 14 and the drum-shell. The clamp 17 en-

gages the ends of the snare-strings, and there is a vertically screw-threaded bearing through said clamp.

The post 18 is placed against the outer face
55 of the shell 10. A screw 19 is inserted through the shell 10 and screw-seated in said post, as required, to hold the post rigidly in position, said post being located near the lower edge
60 of the shell in vertical alinement with the recess 12. A bracket 20 is placed against the inner face of the shell 10 in alinement with the recess 11 and is held in position by means of the screw 21, inserted through said shell
65 and screw-seated in said bracket.

A plate 22 has vertically-extending slots 23, and said plate is placed in position against the inner face of the drum-shell 10 in aline-
70 ment with the recess 11 and is held slidingly in position by means of the screws 24, inserted through the slots 23 into the shell. A rubber cushion 25 is attached to the upper edge of the plate 22. A post 26 is attached to the plate 22 and extends inwardly. A screw 27
75 is inserted upward through a vertical aperture in the bracket 20 and is screw-seated in an aperture in the post 26. The head 28 upon the screw 27 will not pass through the aperture in the bracket 20, and a collar 29 is
80 fixed upon the post to prevent the screw from being withdrawn from the bracket. The plate 22 is adjusted up and down by manipulating the screw 27. A second plate 22 is placed
85 against the inner face of the shell 10 in alinement with the recess 12, said plate being constructed and operated in a manner identical with that just described.

The batter-head 30 is stretched over the upper end of the shell 10. A ring or hoop 31 is
90 pressed downward around the upper edge of the shell 10 and with the edge of the batter-head between the ring and the shell, said ring 31 being constructed, preferably, of ratan and being circular in cross-section and being
95 wound with a string 32 to make it rough. A quantity of glue is applied to the ring 31. Then the edge of the skin forming the batter-head is turned outward and upward around the ring 31 and doubled upon itself.

The tension-hoop 33 is formed of a straight piece of celluloid having its ends spliced and connected together by means of a metal plate 34, and the lower edge 35 of said tension-hoop
100

is inclined inward and concaved, as required, to allow said lower edge to press downward inside of the ring 31. A series of posts 36 is placed against the outer face of the shell 10 and near its lower edge. Interiorly-screw-threaded tubes 37 are inserted vertically through the outer ends of said posts, and washers 38 are placed against the inner face of the shell, and screws 39 are inserted through said washers, through the shell, and screw-seated in the posts 36, with the points of said screws passing through the tubes 37, as required, to hold said tubes in position.

The brackets 40 are placed against the outer face of the tension-hoop 33, and the screws 41 are inserted through said tension-hoop and screw-seated in said brackets, said brackets 40 being in vertical alinement with the posts 36, and the tension-screws 42 are inserted downward through the brackets 40 and screw-seated in the tubes 37. After the tension-hoop 33 has been placed in position and the batter-head 30 smoothed and stretched to some extent the glue surrounding the ring 31 will harden, and the batter-head is firmly attached to said ring 31.

A post 43 is placed against the outer face of the tension-hoop 33 in vertical alinement with the post 18, and a screw 44 is inserted through said tension-hoop and screw-seated in said post, as required, to hold the post in position. A screw 45 is inserted downward through a bearing in the post 43 through the screw-threaded aperture in the clamp 17, and the point of said screw operates in the aperture in the outer end of the post 18. A groove 46 is formed around the screw 45 at the point corresponding to the center of the bearing in the post 43, and a screw 47 is inserted into the post 43 from its outer end, with its point in said groove 46, as required, to prevent the screw 45 from being withdrawn from its position. A handle 48 is formed upon the upper end of the screw 45 for operating the same. The snare-strings are tightened or loosened by manipulating the handle 48, and thus moving the clamp 17 up or down from the screw 45. The post 18 forms a support for the lower end of the screw 45 and assists in holding the clamp 17 in line. The snare-strings are adjusted to and from the lower face of the batter-head 30 by manipulating the screw 27 and moving the plates 22 up or down, and the sensitiveness of the snares is greatly increased by the action of the rubber cushions 25, pressing said snares toward or against the batter-head.

I desire to call particular attention to the construction shown in Fig. 6. By making the shell 10 thick and strong I am enabled to use a light tension-hoop, and by forming the concaved edge 35 upon the tension-hoop and using the ring 31, which is circular in cross-section, a very firm grip is secured upon the edge of the batter-head, and when the screws 42 are manipulated to tighten the batter-head

the lower edge of the tension-hoop will press downward between the ring 31 and the shell of the drum and the strain upon the brackets 40 will not twist the tension-hoop, as would be the case with a weak tension-hoop of the old construction. By the use of a tension-hoop constructed of celluloid I am enabled to make a nicer job, secure a better fit, and get better results in every respect than could be obtained with a wooden or metallic hoop, and as the structure of a celluloid hoop is more even a better fit for the purpose than the materials heretofore used is obtained. The use of the ring 31 and gluing the edge of the batter-head firmly to the ring produces a very satisfactory result.

I claim—

1. In a drum, a thick stiff drum-shell having diametrically-arranged recesses in its upper edge, said recesses extending downward along the outer face, plates embedded in the outer face of said drum-shell to cover said recesses, the upper edges of said plates being on a level with the upper edge of the drum-shell, snare-strings inserted in said recesses between said plates and the drum-shell, a drumhead stretched over the upper end of the drum-shell, plates slidably mounted against the inner face of the drum-shell in alinement with the snare-strings, cushions carried by the upper edges of said plates and yieldingly engaging the snare-strings, and means of sliding and adjusting said plates, substantially as specified.

2. In a drum, a drumhead suitably mounted, snare-strings mounted in position to engage the lower face of said drumhead, cushions slidably mounted inside of the drum-shell and in position to press the snare-strings against the drumhead, and means of adjusting and sliding said cushions, substantially as specified.

3. In a drum, a ring constructed of circular pieces of ratan, a string wound upon said ring, glue applied to said ring and said string and a drumhead placed in position with its edge wrapped around said ring and said string, substantially as specified.

4. In a drum provided with the usual head and snare-strings, the combination with the drum-shell of a plate arranged to slide vertically on the inside of the shell beneath the snare-strings, a clamp formed integral with the upper edge of the plate, a cushion carried by said clamp, a post projecting outwardly from said plate, a post fixed to the drum-shell beneath the plate and a screw passing through the last-mentioned post and entering the first-mentioned post, substantially as specified.

5. In a drum constructed with the usual shell and head, the combination of a ring constructed of a circular piece of flexible material, a string wound upon said ring, around which ring and string the edge of the drum-head is wrapped, and a circular tension-hoop, which hoop has an inwardly-inclined con-

caved lower edge, which lower edge engages the inner and upper surface of the ring, substantially as specified.

5 6. In a drum constructed with the usual shell, a ring constructed of a circular piece of flexible material, a string wound upon said ring, a drumhead within said shell, the edges of which drumhead are wrapped around the ring and string, snares arranged beneath the
10 drumhead, a plate arranged to slide vertically on the inside of the shell beneath the snare-strings, a clamp formed integral with the upper edge of the plate, a cushion carried by

said clamp for engaging the snares, a post projecting outwardly from said plate, a second post fixed to the drum-shell beneath the plate, and a screw passing through the last-mentioned post and entering the first-men- 15 tioned post, substantially as specified.

In testimony whereof I affix my signature 20 in presence of two witnesses.

EMILE BOULANGER.

Witnesses:

EDWARD E. LONGAN,
ALBERT J. MCCAULEY.