

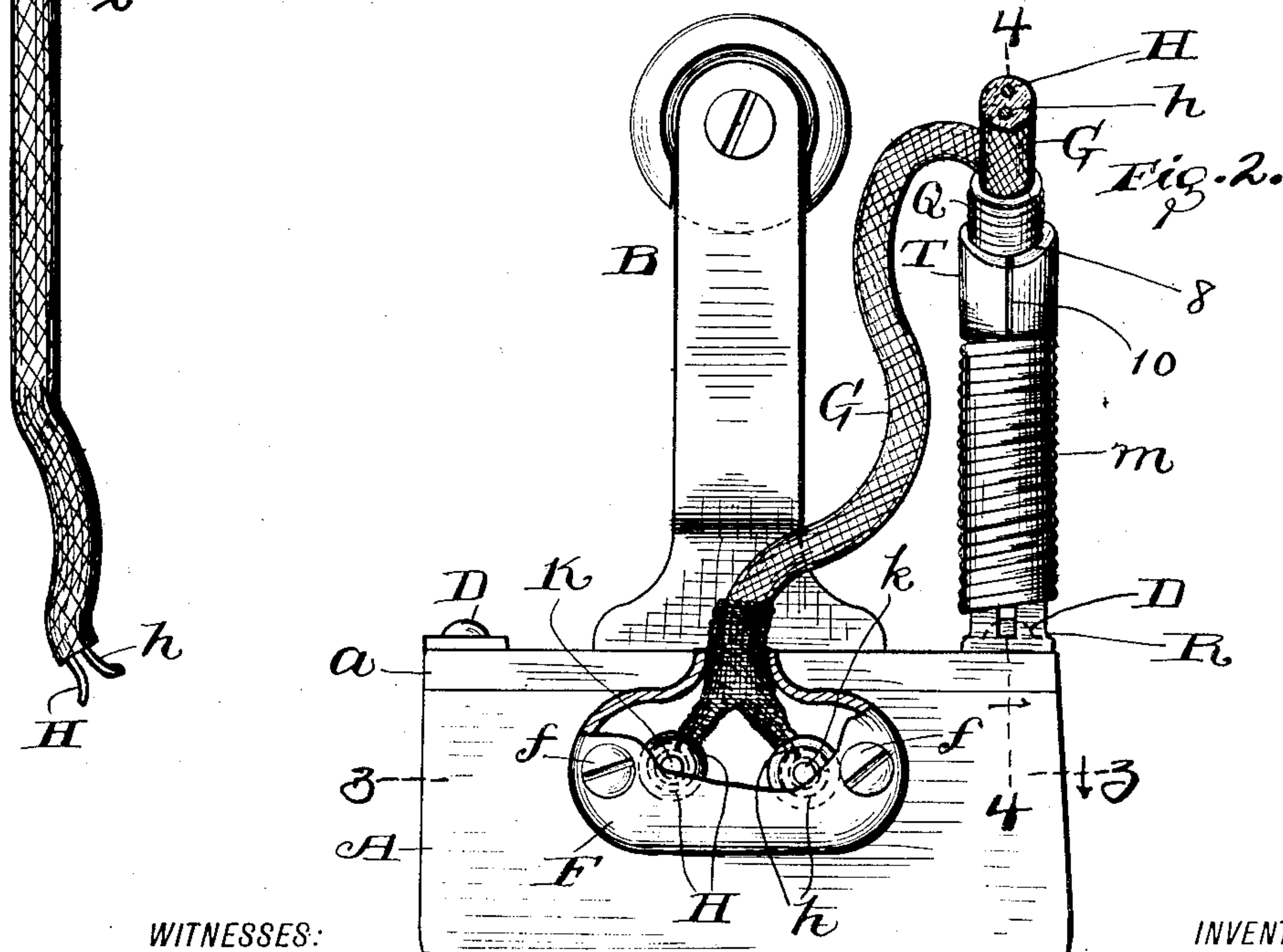
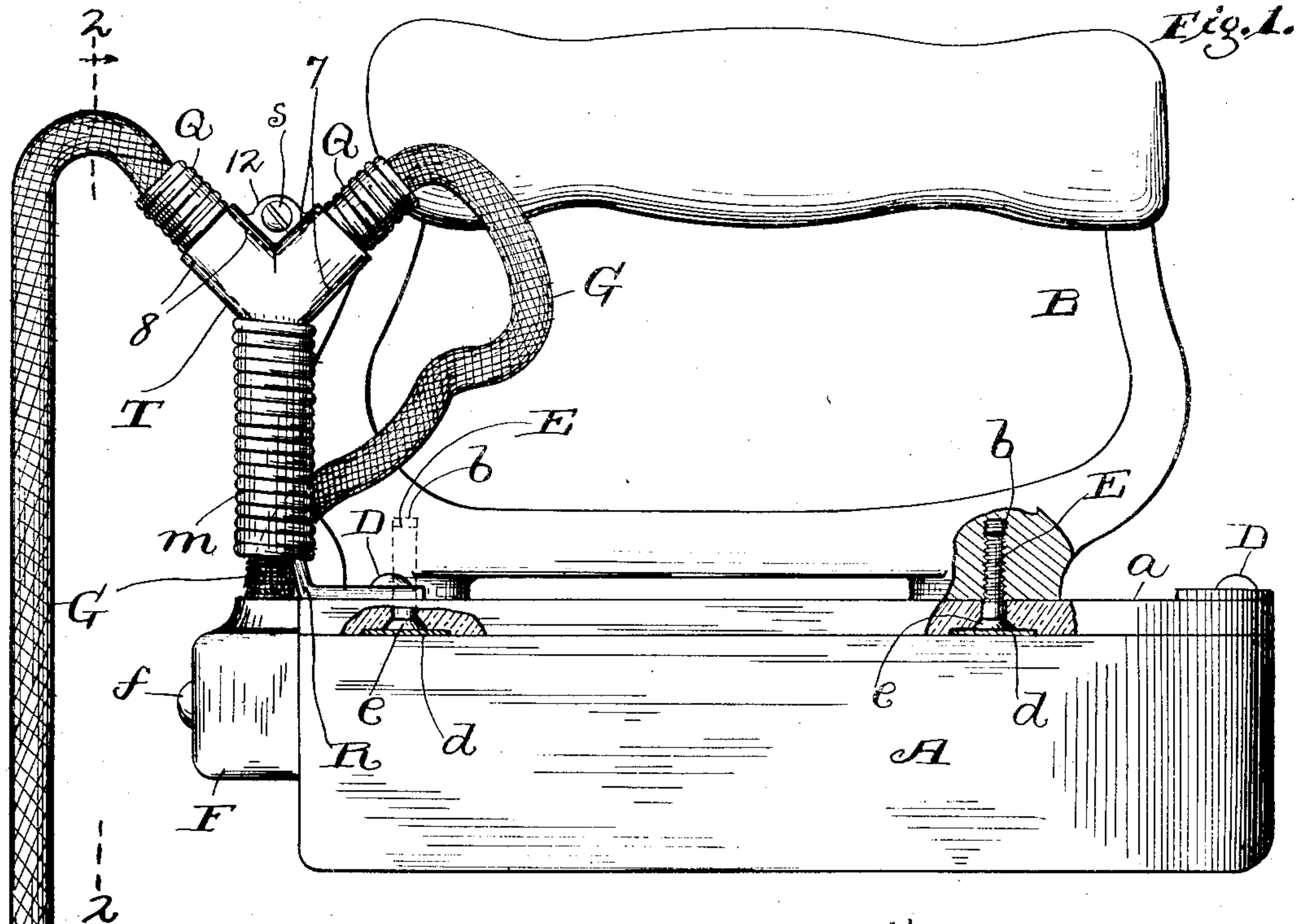
No. 861,249.

PATENTED JULY 30, 1907.

W. J. BARR.
ELECTRICALLY HEATED SAD IRON.

APPLICATION FILED DEC. 17, 1906.

2 SHEETS—SHEET 1.



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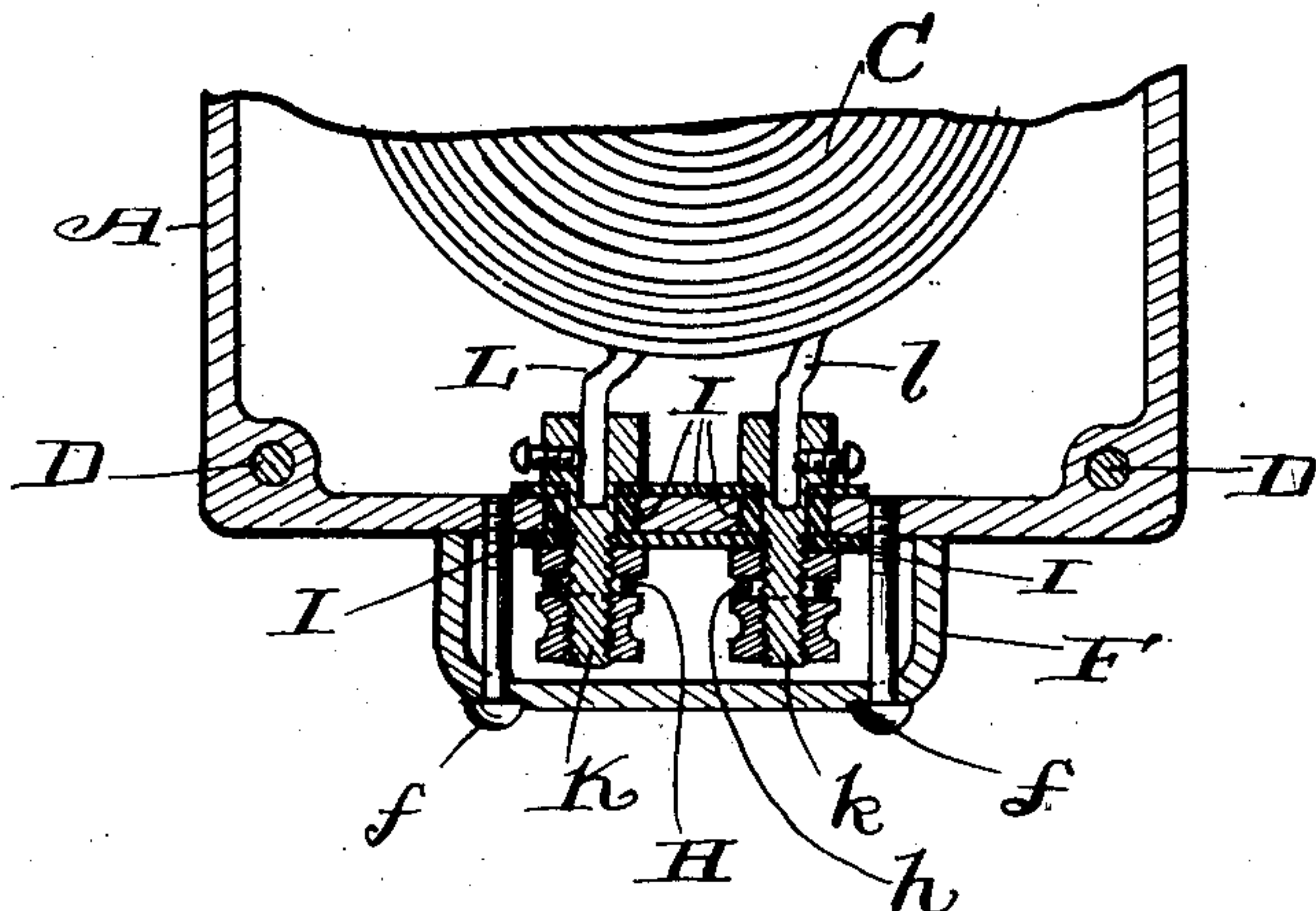


Fig. 3.

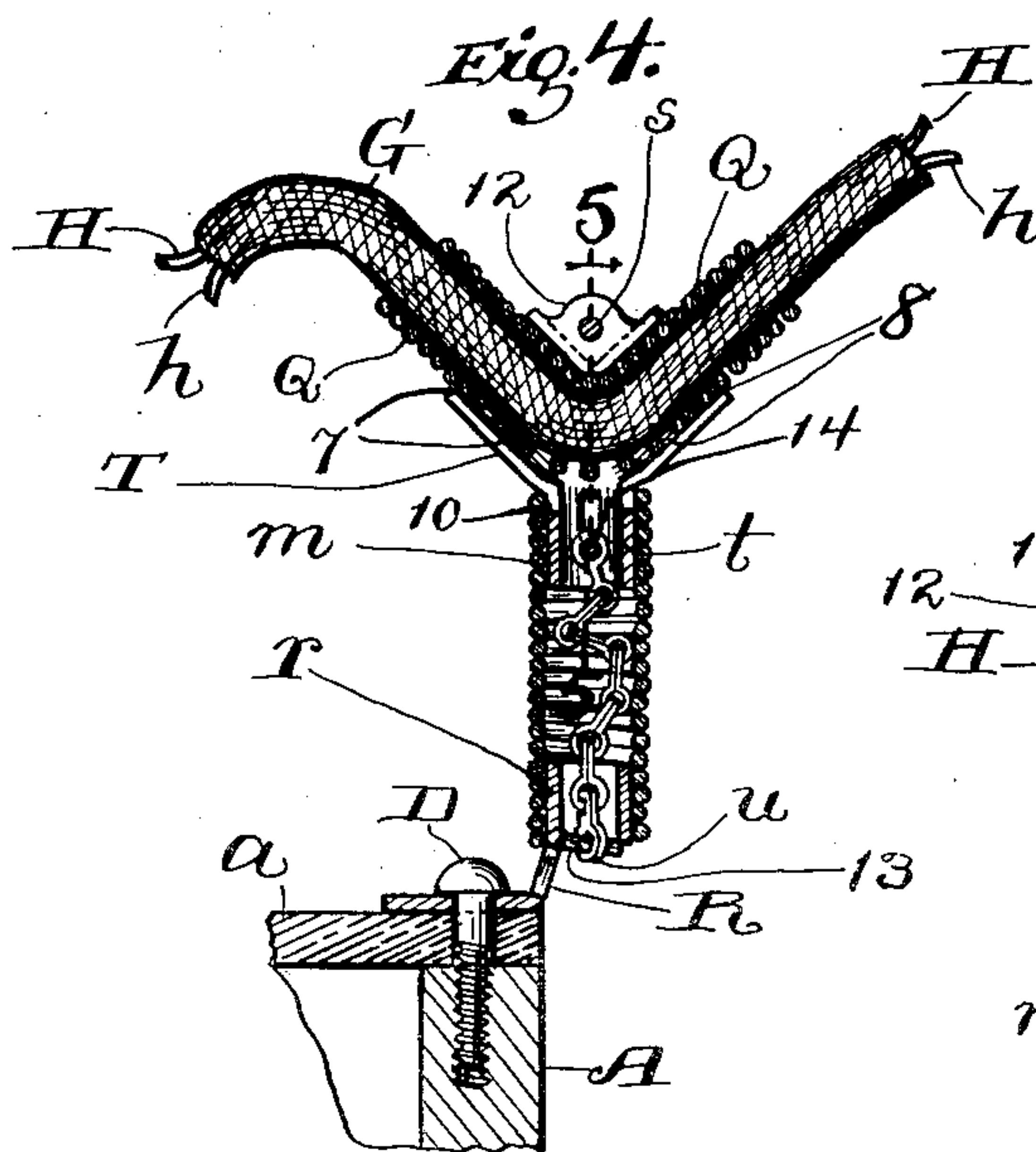


Fig. 4.

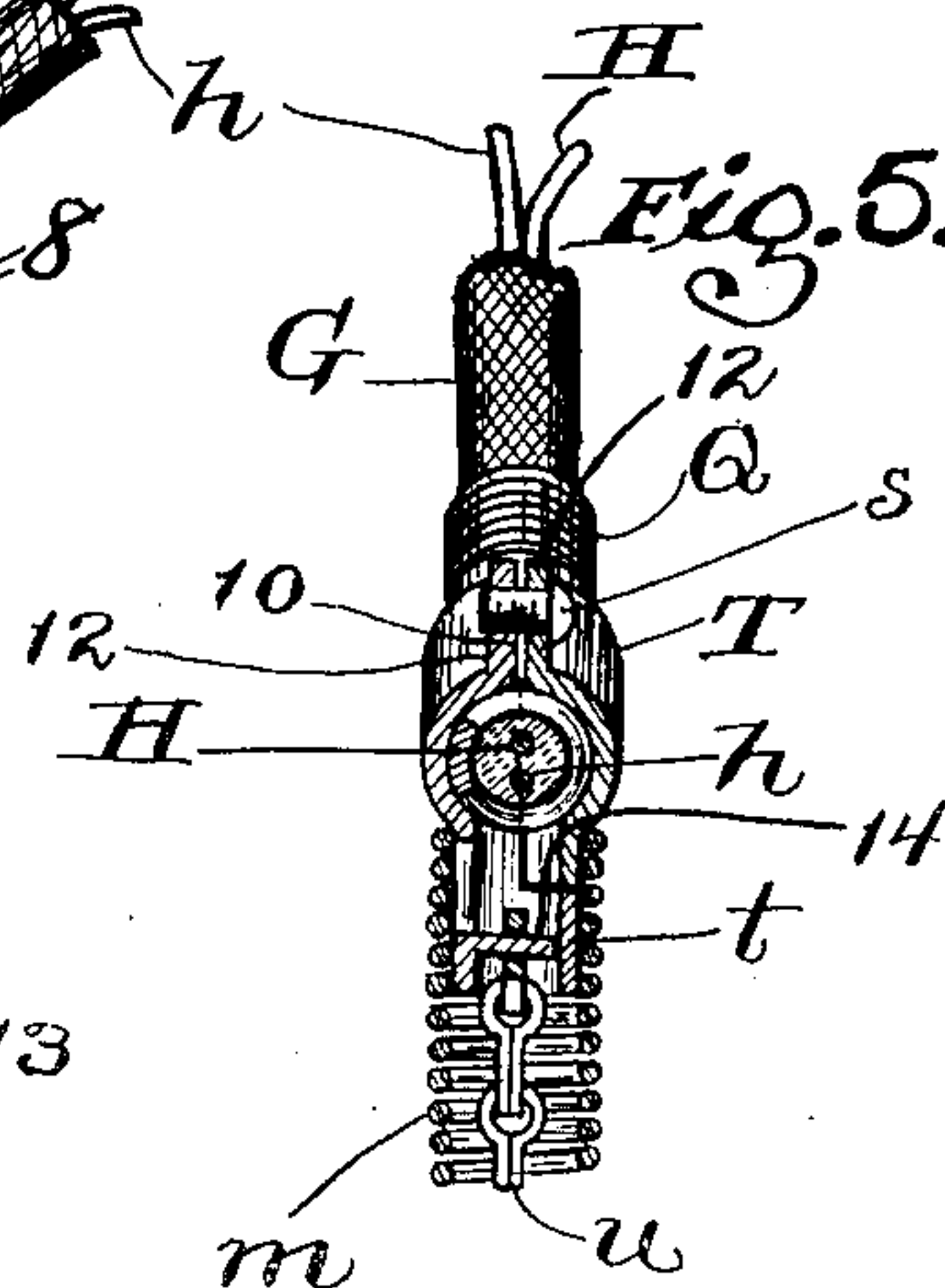


Fig. 5.

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WILLIAM J. BARR, OF CLEVELAND, OHIO.

ELECTRICALLY-HEATED SAD-IRON.

No. 861,249.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed December 17, 1906. Serial No. 348,365.

To all whom it may concern:

Be it known that I, WILLIAM J. BARR, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have in-
5 vented certain new and useful Improvements in Electrically-Heated Sad-Irons; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

10 This invention relates to improvements in electrically heated sad-irons, and pertains more especially to the provision of an electrically heated sad-iron with novel and meritorious protection for the cord by means of which the sad-iron is attached to a wall or other sta-
15 tionary object and which is employed in insulating and inclosing the two electric wires which participate in the connection of opposite terminals respectively of an electric source with opposite terminals respectively of the electro-heating resistance within the body of the
20 sad-iron.

This invention consists also in the provision of the sad-iron body with a handle-bearing top composed of asbestos or other material which is a good nonconductor of heat and electricity and having the handle remov-
25 ably secured thereto in such a manner that heat transmitted or radiating from the electro-heating resistance within the sad-iron-body shall not be transmitted to the handle.

This invention also consists in certain meritorious
30 features of construction, and combinations of parts, hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of an electric sad-iron embodying my invention, and portions are broken away and in section in this fig-
35 ure to more clearly show the construction. Fig. 2 is a vertical section on line 2—2, Fig. 1, looking in the direction indicated by the arrow, and portions are broken away and in section in this figure to more clearly show the construction. Fig. 3 is a horizontal section on line
40 3—3, Fig. 2, looking downwardly. Fig. 4 is a vertical section on line 4—4, Fig. 2, looking outwardly. Fig. 5 is a vertical section on line 5—5, Fig. 4, looking in the direction indicated by the arrow.

Referring to the drawings, A indicates the body of
45 the sad-iron. The body A is provided interiorly (see Fig. 3) with an electro-heating resistance C which is constructed or formed in any approved manner and employed in heating the bottom or ironing surface of the body.

50 B represents the handle of the sad-iron. The body A is provided with a top *a* which is composed of asbestos or other suitable material which is a nonconductor of heat and electricity. The top *a* is secured to the body A by suitably applied screws D. The top *a* covers the
55 whole of the body A so that there is no liability of the handle becoming heated by the radiation of heat up-

wardly from the body. The top *a* completely insulates the whole of the handle B from the body A. The handle B (see Fig. 1) is removably secured to the top *a* by two screws E which are spaced longitudinally of the
60 handle and extend from within the said top into the body and are screwed into the latter. The screws E have heads *e* countersunk within the under side of the top *a*, and the shanks of the said screws engage correspondingly threaded holes *b* formed in the handle.
65 The heads *e* are covered at the inner side of the top *a* with asbestos or any suitable cement or material *d* which is a nonconductor of electricity and heat so that there is no liability of heat being conducted from the interior of the body A into the handle through the me-
70 dium of the said screws.

G indicates a cord to which the sad-iron is attached and which is adapted to be attached to a wall or other stationary object and incloses and insulates the two
75 wires H and *h* employed in electrically connecting opposite terminals respectively of the electro-resistance C in the sad-iron-body with opposite terminals respectively of an electric source, not shown.

The wires H and *h* are shown electrically connecting with and attached (see Figs. 2 and 3) to binding-posts
80 K and *k* respectively which are attached to the rear end of the sad-iron-body and electrically insulated in any approved manner, as at I, Fig. 3, from the sad-iron body, and opposite terminals L and *l* of the electro-heating resistance C are electrically connected with
85 and suitably attached to the posts K and *k* respectively.

The cord G and the wires H and *h* inclosed thereby extend into the upper end of a casing F which is removably secured, by means of screws *f*, to the rear end
90 of the sad-iron-body and protects the outer ends of the binding-posts and the connection of the said wires with the said posts.

A spring-connection is provided between the cord G and the sad-iron, and preferably comprises an upright spiral spring *m* which is arranged at one corner of the
95 sad-iron-body. The spring *m* has its lower end (see Fig. 4) sprung or forced into and thereby is attached to an upright tubular member *r* formed upon a bracket R which is secured to the top *a* of the sad-iron-body preferably by one of the screws D employed in remov-
100 ably securing the said top in place. The spring *m* has its upper end (see Figs. 4 and 5) sprung or forced onto and thereby attached to the depending tubular member *t* of a clamp T which is mounted on the cord G and (see Figs. 1 and 4) is provided interiorly with two holes
105 7 and 8 which diverge upwardly from the upper end of the member *t*. The holes 7 and 8 communicate with each other at their lower and adjacent ends and are open at their upper extremities. The cord G extends longitudinally of and through the holes 7 and 8 and is
110 wound with wire Q where the cord extends through the said holes and a suitable distance beyond the outer

ends of the said holes. Preferably the wire Q is in the form of a spiral spring which snugly embraces the cord within the clamp T and is long enough to protect the cord at the ends of the holes 7 and 8 in the clamp.

- 5 The clamp T is split above its depending member *t*, as at 10, Figs. 2 and 5, vertically and centrally and longitudinally of the holes 7 and 8, and the clamping members thus formed at opposite sides of the split are caused to clamp the wire-wound portion of the cord
10 by tightening a screw *s* which engages correspondingly threaded holes formed in ears 12 which are formed upon the said clamping members centrally between the upper ends of the holes 7 and 8.

The cord G is long enough to accommodate the use
15 of the sad-iron upon the conventional ironing-board, and that portion of the cord which extends between the clamp and the sad-iron-body has slack.

- A chain or flexible connection *u* (see Figs. 4 and 5) is arranged within and longitudinally of the spring *m*
20 and attached at one end to the depending member *t* of the clamp and at its other end to the tubular member *r* of the bracket R. The chain *u* has slack but not as much slack as the cord between the clamp and the sad-iron-body. The spring *m* forms a yielding
25 connection between the cord and the sad-iron and takes up strain caused by twisting and jerking of the cord during the handling of the sad-iron. The chain *u* has enough slack to accommodate the operation of the spring *m*, but limits the expansion of the spring,
30 and the length of the chain is such that it prevents the spring from expanding to such an extent as would bring an undue and destructive strain upon the spring. As the chain *u* has less slack than that portion of the cord extending between the clamp and the sad-iron-body
35 it is obvious that when the chain becomes taut upon inadvertently permitting the maximum expansion of the spring by accidentally dropping the iron or otherwise the said portion of the cord will still have slack enough to prevent strain upon the attachment of the wires H
40 and *h* to the binding-posts K and *k*. Were the sad-iron to drop from the ironing-board it will be observed therefore that the spring *m* and the chain *u* will participate in breaking the fall of the sad-iron; that the spring would first break the said fall, and that before
45 undue and destructive strain were brought upon the spring the fall would be further broken by the chain *u*.

The attachment of the chain *u* to the member *r* of the bracket R is preferably by the projection into the lowermost link of the chain of a tongue or projecting
50 member 13 formed on the said bracket (see Fig. 4). The attachment of the chain *u* to the clamp T is preferably by the projection into the uppermost link of the chain of a tongue or projecting member 14 formed on and interiorly of the depending member *t* of the clamp (see
55 Figs. 4 and 5).

It will be observed also that the arrangement of the spring *m* in an upright position at one of the rear corners of the sad-iron-body is important to arrange the spring-connection between the cord and the sad-iron-
60 body out of the way of the handle of the sad-iron.

What I claim is:—

1. The combination, with the body of an electric-sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the electro-heating resistance and adapted to
65

be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a spiral spring attached at one end to the sad-iron and at its other end to the cord a suitable distance from the body of the sad-iron, and the cord having slack between the sad-iron-body and the point of attachment of the spring to the cord. 70

2. The combination, with the body of an electric sad-iron, an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the electro-heating resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a spiral spring attached at one end to the sad-iron and at its other end to the cord a suitable distance from the body of the sad-iron, and means for limiting the expansion of the spring, and the cord having slack between the sad-iron-body and the point of attachment of the spring to the cord, which slack is great enough to accommodate the operation of the means employed in limiting the expansion of the spring. 75 80 85

3. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the electro-heating resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a spiral spring attached at one end to the sad-iron and at its other end to the cord a suitable distance from the body of the sad-iron, and a flexible connection having slack and attached at one end to the sad-iron and at its other end to the cord, and the cord having more slack between the sad-iron-body and the point of attachment of the spring to the cord than the aforesaid flexible connection. 90 95 100

4. The combination, with the body of an electric sad-iron, an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the electro-heating resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of an upright spring-connection between the sad-iron and the cord a suitable distance from the body of the sad-iron, and the cord having slack between the sad-iron-body and the point of attachment of the spring to the cord. 105 110 115

5. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the electro-heating resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of an upright spiral spring attached at its lower end to the body of the sad-iron at one of the rear corners of the sad-iron-body, which spring is attached at its upper end to the cord a suitable distance from the sad-iron-body, and the cord having slack between the sad-iron-body and the point of attachment of the spring to the cord. 120 125

6. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a bracket attached to the body of the sad-iron and provided with an upright tubular member, and a spiral spring forced onto and thereby attached to and extending upwardly from the said tubular member and attached at its other end to the cord a suitable distance from the body of the sad-iron, and the cord having slack between the sad-iron-body and the point of attachment of the spring to the cord. 130 135 140

7. The combination, with the body of an electric sad- 145

iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a bracket attached to the sad-iron; a spiral spring attached at one end to the bracket and at its other end to the cord a suitable distance from the body of the sad-iron, and a chain surrounded by the coils of and extending longitudinally of the spring and attached at one end to the cord, which chain has slack and is attached at its other end to the aforesaid bracket, and the cord between the sad-iron-body and the point of attachment of the spring to the cord having more slack than the chain.

8. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the wires and long enough to accommodate the range of movement of the sad-iron, of a bracket attached to the sad-iron and provided with an upright tubular member; a spiral spring forced onto and thereby attached to and extending upwardly from the said tubular member, which spring is attached at its other end to the cord a suitable distance from the body of the sad-iron, and a chain having slack and surrounded by the coils of and extending longitudinally of the spring and attached at one end to the cord, and the cord between the sad-iron-body and the point of attachment of the spring to the cord having more slack than the chain and the aforesaid bracket having a tongue or member projecting into a link of the chain.

9. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a clamp mounted on and clamping the cord a suitable distance from the body of the sad-iron, and a spring connection between the clamp and the sad-iron-body, and the cord having slack between the sad-iron-body and the clamp.

10. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a clamp mounted on and clamping the cord a suitable distance from the body of the sad-iron and having a tubular member; a spiral spring forced at one end onto and thereby attached to the said tubular member and attached at its other end to the sad-iron, and the cord having slack between the sad-iron-body and the clamp.

11. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of

an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a clamp mounted on and clamping the cord a suitable distance from the body of the sad-iron; a spiral spring attached at one end to the clamp and at its other end to the sad-iron; a flexible connection having slack and arranged longitudinally of the spring and attached at one end to the clamp and at its other end to the sad-iron, and the cord between the sad-iron-body and the clamp having more slack than the aforesaid flexible connection.

12. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and a cord inclosing the said wires and long enough to accommodate the range of movement of the sad-iron, of a clamp mounted on and clamping the cord a suitable distance from the body of the sad-iron and having a tubular member; a spiral spring forced at one end onto and thereby attached to the said tubular member and at its other end attached to the sad-iron, and a chain having slack and surrounded by and extending longitudinally of the spring and attached at one end to the sad-iron, and the aforesaid tubular member of the clamp being provided interiorly with a tongue or member projecting into a link of the chain, and the cord between the sad-iron-body and the clamp having more slack than the chain.

13. The combination, with the body of an electric sad-iron, an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and the cord inclosing the wires, of a clamp mounted on the cord a suitable distance from the sad-iron-body and having a depending member, which clamp above the said depending member has two cord-clamping members and two upwardly diverging holes formed by the said clamping members, said clamping members being provided between the upper ends of the said holes with ears and a screw screwed into the said ears, and a spiral spring attached at one end to the aforesaid depending member of the clamp and at its other end to the sad-iron-body, and the cord having slack between the sad-iron-body and the clamp.

14. The combination, with the body of an electric sad-iron; an electro-heating resistance within the said body; wires electrically connected with opposite terminals respectively of the said resistance and adapted to be electrically connected with opposite terminals respectively of an electric source, and the cord inclosing the wires and wound with wire a suitable distance from the sad-iron-body, of a clamp mounted on and clamping the wire-wound portion of the cord between and a suitable distance from the ends of the said wire-wound portion, and a spring attached at one end to the clamp and at its other end to the sad-iron-body, and the cord having slack between the sad-iron-body and the clamp.

In testimony whereof, I sign the foregoing specification, in the presence of two witnesses.

WILLIAM J. BARR.

Witnesses:

C. H. DOVER,

B. C. BROWN.