(No Model.)

E. BALLET.

INSULATING COUPLING.

No. 493,883. Patented Mar. 21, 1893.

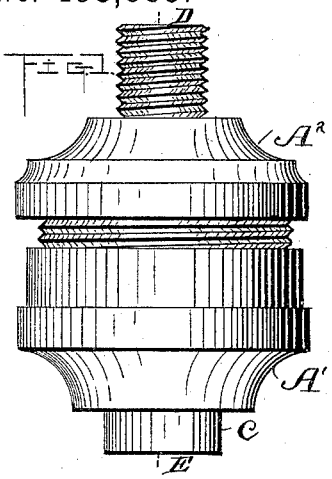


FIG. 1.

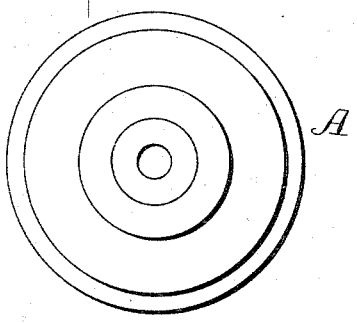


FIG. 3.

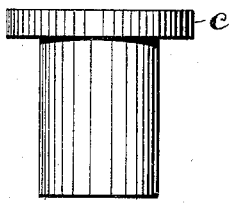
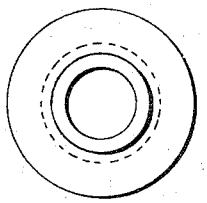


FIG. 4.



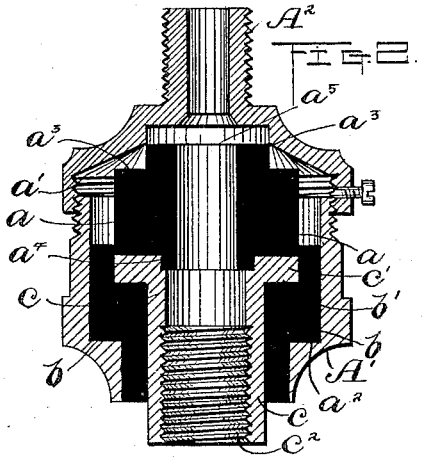


FIG. 2.

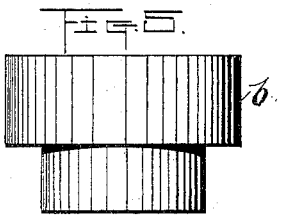
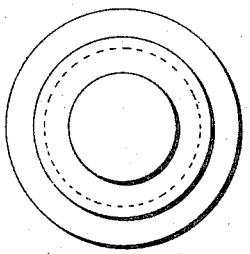


FIG. 5.



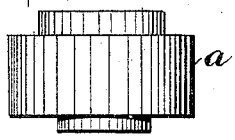
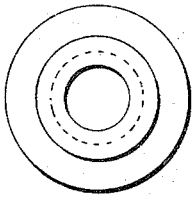


FIG. 6.



WITNESSES

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ERNEST BALLET, OF BORDEAUX, FRANCE.

INSULATING-COUPLING.

SPECIFICATION forming part of Letters Patent No. 493,883, dated March 21, 1893.

Application filed October 31, 1892. Serial No. 450,586. (No model.) Patented in France May 7, 1892, No. 221,365.

To all whom it may concern:

Be it known that I, ERNEST BALLET, a citizen of the French Republic, residing at Bordeaux, in the Republic of France, have invented certain new and useful Improvements in Insulating-Couplings, (for which Letters Patent have been granted to me in France, No. 221,365, dated May 7, 1892,) and I do 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 appertains to make and use the same.

This coupling is especially intended to be used with the pipes of chandeliers which are lighted by electricity alone or by electricity and gas also.

The chief object of my invention is to provide improved means for insulating the electric wires from the metal of the chandelier. The same coupling may, however, of course be applied to other uses.

In the accompanying drawings Figure 1 represents a side elevation of my improved coupling. Fig. 2 represents a vertical central elevation of the same on the line D E of Fig. 1; Fig. 3 represents a plan of the same; and Figs. 4 5 and 6 represent detail views in plan and elevation, respectively, of the coupling cylinder *c* and the two insulating cylinders *a* and *b* hereinafter described.

A and A′ designate respectively the upper and lower sections of the hollow casting or shell of the coupling, these sections being connected together by screw-threads *a*′, which allow the coupling to be compressed or extended at will within certain limits. The upper end of section A is provided with an externally screw-threaded tubular extension A^2 for making the pipe-connection at that end of the coupling. An internally screw threaded metal cylinder *c* (which however may be of any other suitably strong material) protrudes through the open lower end of the section A′ and is internally screw-threaded at c^2 to make the other pipe connection. The upper end of this cylinder is enlarged to form a head *c*′ that fits into an annular recess *b*′ in the interior of the upper end of a concentric insulating cylinder *b* which fills the space between section A′ and cylinder *c* and rests on a shoulder a^2 of the former. Another insulating cylinder *a* rests upon the said head *c*′ and is provided with an annular shoulder a^4 which fits into a corresponding recess thereof. Another extension a^3 at the upper end of cylinder *a* fits into a corresponding recess a^5 in the lower or inner face of section A, and may move up or down in the same as the sections A A′ are screwed more or less tightly together. The bores of the cylinders *c* and *a* and the tubular extension A^2 are in line and practically continuous. The electric wires, not shown, of course run through the passage thus formed.

For the material of the insulating cylinders *a b* I prefer box-wood, although any other of suitable material may be substituted. Any kind of metal adapted to the purpose may be used in sections A A′. Of course the size of the coupling may be varied at will as needed. When used with a chandelier, it is placed above the same near the ceiling, that is to say at the end of the principal rod.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

An insulating pipe-coupling consisting of the internally screw-threaded tubular cylinder *c* having a head *c*′ which is recessed on top around its central bore, an insulating cylinder *b*, surrounding cylinder *c*, recessed internally in its upper end to receive and support the said head and having an external annular shoulder, the lower shell section A′ having an internal shoulder a^2 for supporting said annular external shoulder, an insulating cylinder *a* which rests on the said head *c*′ and is provided with a downward extension that fits into the recess thereof, and the upper shell A provided with a recess a^5 for receiving an extension a^3 on the upper end of the last named cylinder the said upper shell being screw-threaded for coupling with a pipe, the two sections A and A′ having screw-threaded engagement together for tightening or loosening and the bores of the parts A, *a*, and *c* being continuous substantially as set forth.

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

E. BALLET.

Witnesses:
JOHN PRESTON BEECHER,
STEWART CLINCH.