

# UNITED STATES PATENT OFFICE.

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## BILLIARD-CLOTH.

No. 801,393.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed February 17, 1905. Serial No. 246,064.

*To all whom it may concern:*

Be it known that I, JACOB N. McINTIRE, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented new and useful Improvements in Billiard-Cloth and the Process of Making the Same, of which the following is a specification.

My invention relates to that species of cloths for covering the beds of billiard-tables and constituting the playing-surface thereof that is known as a "compound" cloth—i. e., a cloth composed of two fabrics compounded or united by an intermediate adhesive material to produce the completed covering for the table-bed; and it has for its main object to provide for use a better compound cloth than any heretofore made or known.

To this main end and object my invention consists of a billiard-cloth composed of the usual woolen (green) cloth as the "playing-surface" (or the surface on which the balls roll) in a stretched or taut condition and an under fabric or cloth of some cheaper and practically non-stretchable or inelastic material and some sort of intermediate adhesive and preferably vulcanizable material operating to permanently unite the two fabrics, all as will be hereinafter more fully described and as will be more particularly pointed out in the claims of this specification; and my invention further consists in making a compound billiard-cloth by uniting a stretched or taut upper woolen fabric with an under practically-inelastic fabric by means of an interposed adhesive material, preferably capable of vulcanization, all as will be hereinafter more fully described and as will be more particularly pointed out in the claims of this specification.

Previous to my invention a compound billiard-cloth has been made and used composed of an upper woolen cloth, (the usual "billiard-cloth,") an under cotton cloth, and an interposed or intermediate layer of a suitably adhesive and vulcanizable material—such, for instance, as a rubber compound—and such compound cloth possesses the advantages over the usual woolen billiard-cloth stretched over and upon the naked bed-surface of the table of being more durable and also preventing the passage through the table-bed covering and the lodgment beneath the said covering of chalk-dust and other fine dirt which, col-

lecting between the slate surface of the table-bed and the cloth covering, destroys the perfection of surface in the cloth on which the balls roll; but this sort of compound cloth possesses the practical objection of not being so "fast" a table-covering as the usual (green) woolen cloth applied directly and in the usual taut condition to the table-bed, and while a table-bed covering composed of two separately-applied cloths—first, a practically inelastic cotton or canvas cloth put directly on the slate-bed surface and then the usual woolen billiard-cloth stretched over on top of the cotton inelastic fabric in the well-known manner—possesses equally with such compound cloth the quality of durability and is a "faster" table-covering (and in this respect a better one) than such compound cloth it is open to the objection that dust can pass through one or both separate fabrics and accumulating unevenly beneath the green cloth injuriously affects the rolling of the balls on the playing-surface of the table.

To produce a table-covering embodying the good qualities of each of these two kinds of table-coverings without the objectionable features of either it has been suggested to make a compound cloth by the permanent union through the medium of an interposed layer of adhesive (and preferably vulcanizable) material of an upper woolen fabric (the usual billiard-cloth) and an underneath or backing fabric of some comparatively cheap but elastic or stretchable woven material—such, for instance, as stockinet—and United States Letters Patent No. 767,922 were granted on the 16th day of August, 1903, for such a compound cloth. This last-named patented species of compound cloth must possess, it will be seen, the same advantages as compared with the previously-devised compound cloth of durability and prevention of dust passage through the table-covering to lodge beneath the cloth and at the same time be a faster covering than such prior compound cloth by reason of the assumed capacity to stretch such last-devised covering and apply it in a taut condition, (the same as the single wool cloth was ever applied;) but in practice there is difficulty both in uniting the two elastic fabrics and in producing therewith by an intermediate uniting and vulcanized layer or film a compound cloth that can be laid taut on or stretched well on the slate bed.



I produce and provide for use a compound cloth possessing all the desirable qualities (of durability, imperviousness to dust, &c.) of other table-coverings of this species and one  
 5 which at the same time is as fast as the stretched-on woolen-cloth covering even when used without a separate backing fabric and that can be as economically made and as readily applied as the prior less desirable compound  
 10 cloths. This desideratum I gain by simply uniting an upper woolen cloth (an ordinary green billiard-cloth) while in a stretched or taut condition with a practically inelastic cotton or other woven fabric by means of  
 15 any suitable interposed adhesive film, preferably of a vulcanizable character, so that when completed and ready for use my compound cloth comprises an upper woolen fabric in the same stretched condition as an ordinary  
 20 billiard-cloth after its application to the table-bed in the old-fashioned way, so as to render the playing-surface a fast one, and also an underneath cloth to render the covering durable under the pounding action of the balls  
 25 (especially when massé shots are played) and also is impervious to the chalk dust and other dirt which collects on the playing-surface of the table-covering.

To make my improved compound cloth, I  
 30 simply take a (green) ordinary billiard-cloth and stretching it on a plane or flat supporting-surface apply to its exposed (bottom) surface the adhesive and preferably vulcanizable material in the known manner of performing  
 35 such operation and then applying to such coated surface of the woolen cloth the backing cloth or fabric (either with or without any coating of the adhesive material on it) permanently unite the two fabrics in any of  
 40 the known ways of and by the known appliances for uniting two separate fabrics with an interposed adhesive material.

If the uniting material be vulcanizable, as I prefer it should be, the united fabrics or  
 45 the thus compounded cloths and intermediate

film are vulcanized in any manner usual in the manufacture of compound billiard cloths such as made and used prior to my invention.

My improved billiard-bed covering will embody in an equally eminent degree with the  
 50 old fashion separately-applied and stretched-on green cloth the quality of a fast traveling or rolling of the balls and will at the same time embody the desirable qualities of durability and imperviousness to dust possessed  
 55 by other previously-made but slower compound clothes.

What I claim as of my invention, and desire to secure by Letters Patent, is—

1. A compound billiard-cloth composed of  
 60 stretched, or taut woolen fabric, such as the usual green cloth; a lower substantially inelastic fabric, such as the heretofore-employed cotton cloth, or canvas backing; and an intermediate uniting, adhesive, film, or element;  
 65 all substantially as and for the purposes set forth.

2. A compound billiard-cloth, composed of an upper, stretched or taut woolen fabric, such as the usual green cloth; a lower, substantially inelastic fabric, such as the heretofore-  
 70 employed cotton cloth, or canvas backing; and an intermediate uniting, adhesive, and vulcanized film, or layer; all substantially as and for the purposes set forth. 75

3. The herein-described method or process, of making a compound billiard-cloth, consisting in uniting, or compounding with a stretched, or taut woolen, top fabric, a substantially inelastic or non-stretchable backing  
 80 fabric, by means of an interposed film, or layer, of adhesive material; for the purposes set forth.

In witness whereof I have hereunto set my hand this 16th day of February, 1905.

J. N. MCINTIRE.

In presence of—

A. MEYENBERG,  
 EDWARD F. BAYER.