

No. 609,842.

Patented Aug. 30, 1898.

C. G. SMITH.  
SPRING BED DEVICE.

(Application filed May 7, 1897.)

(No Model.)

FIG. 1.

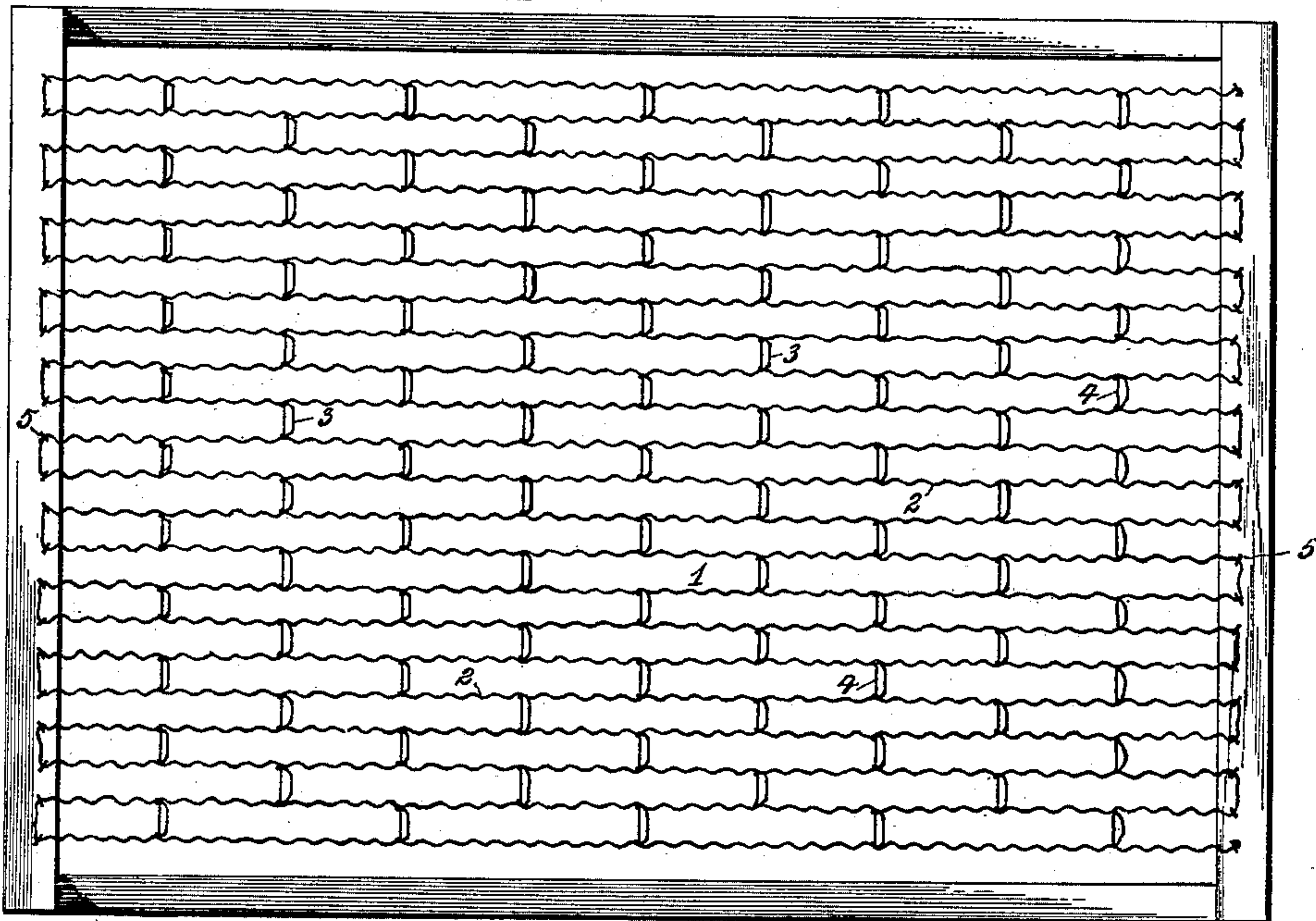


FIG. 2.

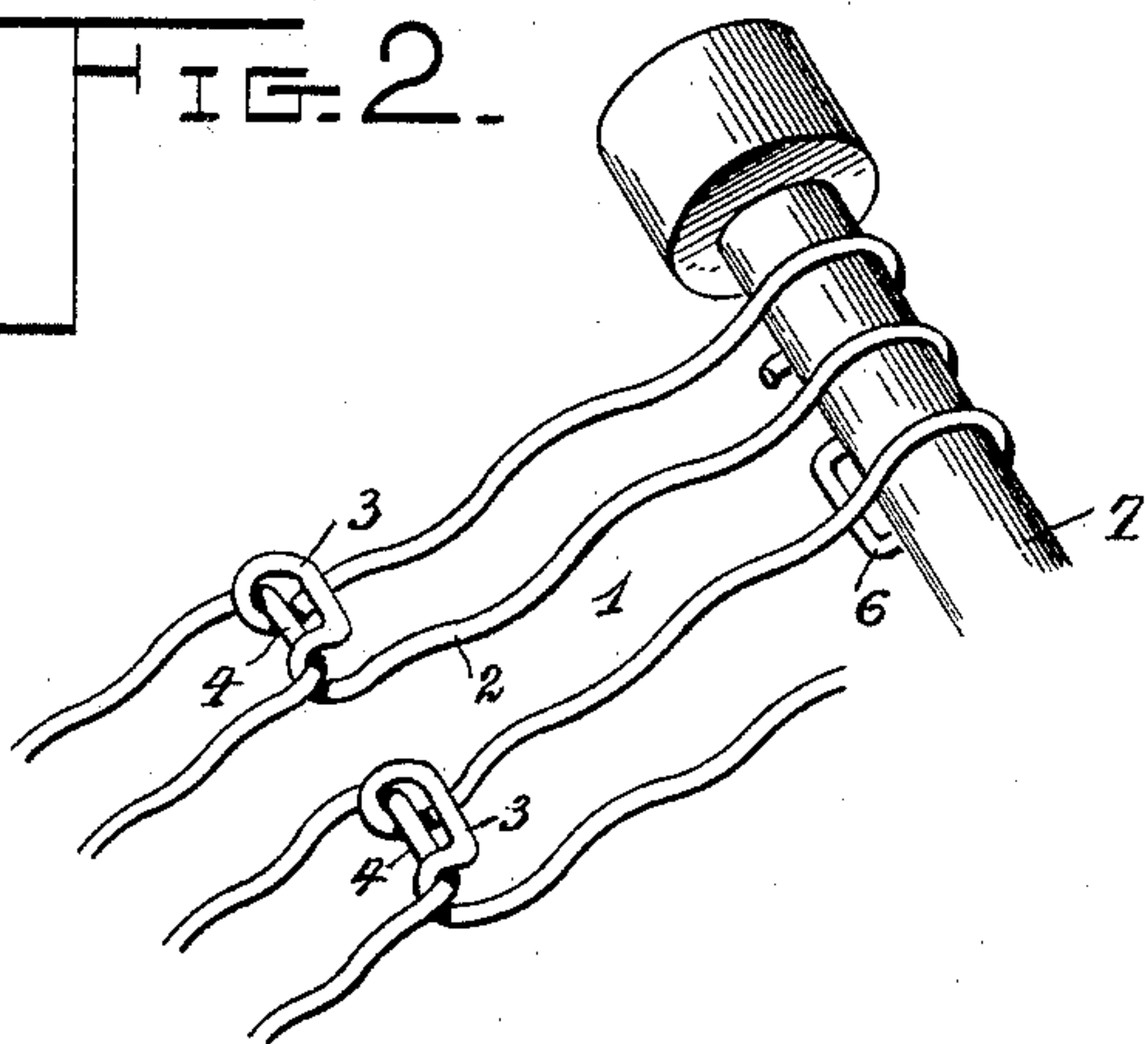
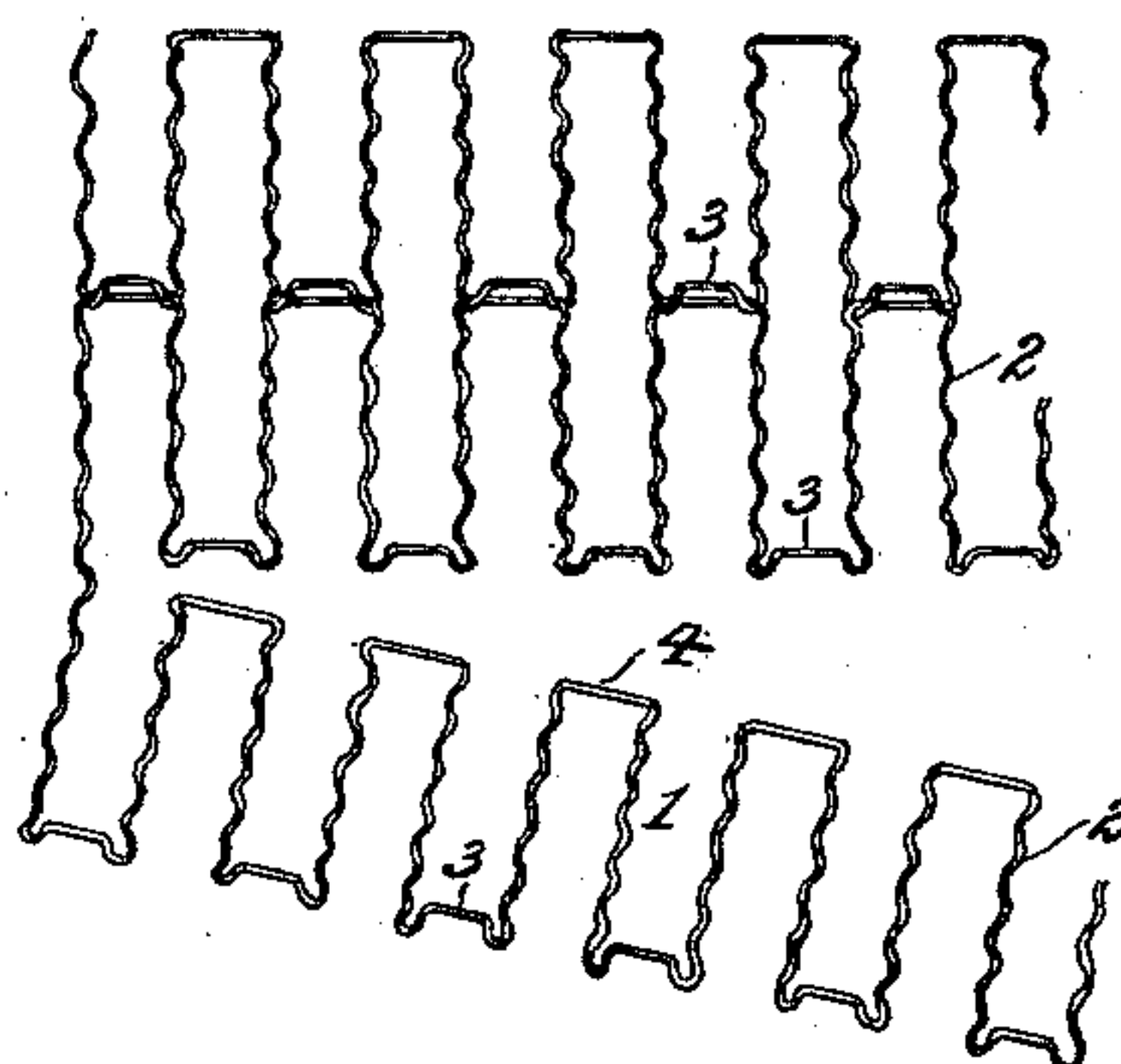


FIG. 3.



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

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## SPRING-BED DEVICE.

SPECIFICATION forming part of Letters Patent No. 609,842, dated August 30, 1898.

Application filed May 7, 1897. Serial No. 635,583. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES G. SMITH, a citizen of the United States, residing in the city of Detroit, in the county of Wayne, State of Michigan, have invented new and useful Improvements in Spring-Bed Devices; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

The object of the present invention is to provide a fabric particularly adapted for a spring bed-bottom that can be made in a cheap substantial manner and that will retain its elasticity indefinitely, that will not sag or spread out of its proper position, and that can be easily attached to any form of bedstead or bed-spring frame with little or no skill or machinery and which therefore can be shipped without the necessity of paying freight on heavy frames, and also to provide means whereby persons having old bed-frames in good condition, but upon which the fabric has become worthless from sagging or other causes, can easily and cheaply provide themselves with a new spring-bed by simply attaching this fabric to the old frame or bedstead, as herein described.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a plan view of a spring bed-bottom constructed in accordance with this invention. Fig. 2 is a detail view showing the manner of forming the fabric and attaching it to the bar of an iron bedstead. Fig. 3 is a detail view showing the manner of forming the fabric of a single wire.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The fabric is composed of a series of sections disposed in parallel relation and simi-

larly formed, each section comprising a single wire bent zigzag, forming loops 1, having one end closed and the opposite end open, said loops being alternately arranged, so that the open ends of one set of loops come between the closed ends of the other set of loops, as indicated. The side members 2 of the several loops are crimped or waved, thereby admitting of the loops having a linear spring action, so as to expand and contract, which is essential in the formation of a fabric for spring bed-bottoms. The crimps or waves are in the plane of the fabric or bed-bottom to provide an extended surface for the mattress or other bed-covering and also to prevent the strain coming upon the crests or apexes of the crimps and destroying their elasticity and the spring of the fabric.

The closed ends of the loops are square, and the alternate loops have their closed ends bent to provide hooks 3, which are adapted to interlock with the intermediate closed ends 4 of adjacent sections. The side members of the loops are parallel, and when the sections are interlocked the side members of the series of sections unitedly form parallel longitudinal strands, which are in the direct line of strain, which latter is compensated for by the crimps or waves, which, contracting when the pressure is removed, return the fabric to a normal condition. In constructing the fabric the closed ends of the loops of contiguous sections are interlocked, and this result is accomplished, as shown, by engaging the hooks 3 with the ends 4.

Each section is formed of a single wire bent into the form shown; but in some instances the entire fabric may be constructed of a single wire, as indicated in Fig. 3. The fabric may be manufactured in different widths, according to the purpose for which it is designed or the size of the bedstead or frame to which it is to be fitted, and may be made in suitable lengths or one length and subsequently cut into the required length. When applied to a wooden frame, as shown in Fig. 1, it will be secured to the end bars by staples 5 or like fastenings; but when applied to an iron bedstead the extreme loops will be bent to form hooks 6, which engage with the rods 7, forming an end bar of the bedstead.

The manner of interlocking the loops of the



sections prevents torsional strain of the side members or longitudinal strands, thereby keeping the crimps or waves in the plane of the bed-bottom or fabric and preventing sag-  
5 ging or a permanent spreading of the crimps, which would occur if torsional strain were permitted. Moreover, the turning of the side members so as to bring the crimps or waves at right angles to the plane of the fabric  
10 would cause injury to the mattress or other bed-covering, because the angles or crests would press into the mattress or other part resting directly upon the fabric, and which would become worn by coming into contact  
15 with the projecting parts.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

20 A wire fabric for bed-bottoms and the like, comprising a series of duplicate parallel sections, each section formed from a single length of wire bent or formed into an alter-

nate series of loops, the sides thereof being parallel and waved or crimped laterally or in the plane of the fabric, the closed ends of  
25 the loops at one end of the series being formed straight or at approximate right angles to the sides of the loops, and the other end formed into straight hooks disposed in a plane beyond that of the fabric, the hooks of each  
30 section being caught around the straight closed ends of the adjoining section and thereby disposing the respective sides of the loops in a continuous straight line from end to end of the fabric, thereby placing the  
35 strain longitudinally upon the sides of the loops, substantially as set forth.

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

CHARLES G. SMITH.

Witnesses:

GUSSIE GOLDSTEIN,  
JOSEPH K. TUTTLE.