

C. Schröder,

Bed Bottom,

Nº 19,473,

Patented Feb. 23, 1858

Fig. 1.

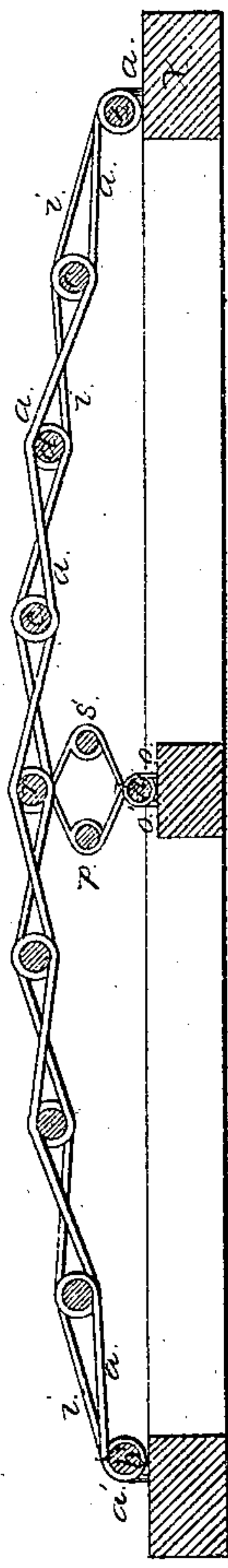
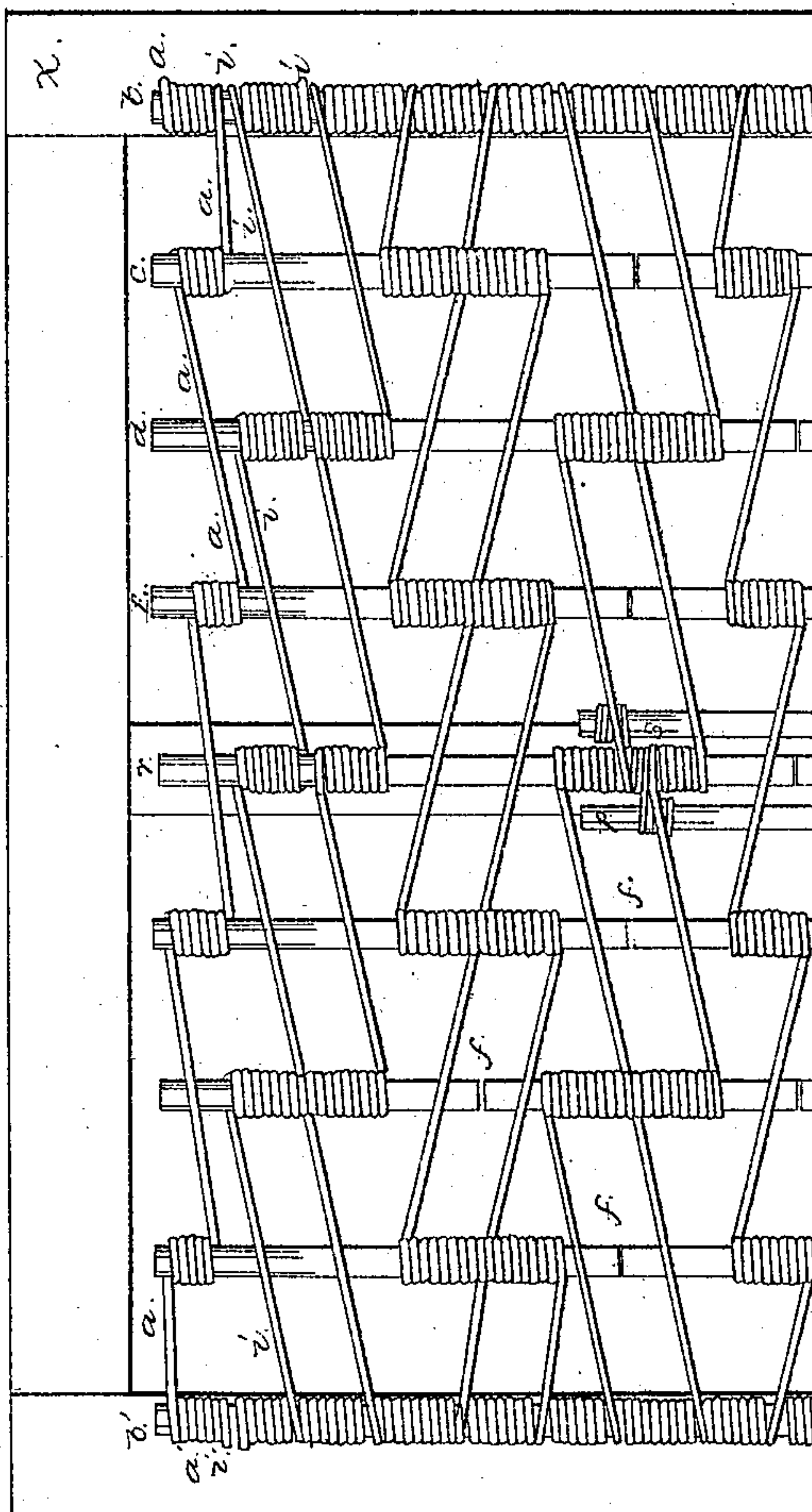


Fig. 2.



UNITED STATES PATENT OFFICE.

C. SCHRÖDER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND P. H. TUSKA, OF SAME PLACE.

SPRING BED-BOTTOM.

Specification of Letters Patent No. 19,473, dated February 23, 1858.

To all whom it may concern:

Be it known that I, CHARLES SCHRÖDER, of New York, county of New York, and State of New York, have invented certain
5 new and useful Improvements in Spring-Bottoms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawing, making a part of this
10 specification, which is fully described herein and in which similar letters indicate similar parts throughout.

My invention is an improvement in that class of "spring bottoms," as they are
15 termed, in which, series of transverse arches are constructed, each arch being a set of short spiral springs lying horizontally, and all of the springs in the set being formed from a continuous wire which is attached
20 at both of its ends to, or rests upon, the frame. Many methods have been devised of constructing these arches, as well as of connecting the contiguous sets of springs which form said arches with each other, to
25 make a "bottom" of desired length, it being necessary in order that the said bottom may be of general use as a foundation, particularly for the backs of sofas and chairs, that it should be such as will require but a thin
30 covering of curled hair or moss, &c., to conceal the irregularities of surface, and give the feeling of regular action at all points, and that it shall have the greatest possible strength and elasticity with the
35 least amount of materials. That the plan which I have invented admits of this use to the greatest extent will be evident from the following description of its construction and operation.

40 In the annexed drawings my plan is shown as for a bedstead, Figure I being a transverse vertical section between two sets of springs, and Fig. II being a top or plan view of so much of a bed bottom as is necessary for this explanation. In these it will
45 be seen that the wire (*a*) is inserted in one of the sides of the frame X and thence is so wound upon a rod (*b*), which extends along the frame, that it shall leave the rod
50 upon the upper side thereof, as shown. A few turns is sufficient, say six or eight, and for a bed bottom the rod may be only of about an inch in diameter. The spiral spring being thus formed upon the rod (*b*),
55 the wire passes thence, as before stated,

over the upper side, to another rod (*e*) placed parallel with the first on the general line of an arch as in Fig. I, and at a short distance from it, as shown. The wire passes
on to the underside of this one, and then is 60 wound upon it in the same direction as before, for about half a dozen turns, thence, leaving this rod (*c*) at the underside, it is carried over a similar rod (*d*) which is
placed as far from (*c*) as that was from 65 (*b*) the wire merely resting upon the rod (*d*) and going on to the underside of the next equidistant one, as (*e*). This is continued, as shown, entirely across the frame, the last rod (*b'*) receiving the wire upon its
70 upper side, and which wire is inserted into the side of the frame at (*a'*). Another wire (*i*) is now started from the frame X, in the same manner, but this one passes over the rod (*c*), merely resting upon it, and is
75 wound, as before, from the under side, upon the next rod (*d*), being that which the wire (*a*) rests upon. This is continued across to the opposite side where the wire (*i*) is inserted into the frame at (*i'*). As thus con- 80
structed the effect of pressure upon any part of the arch is to wind more of the wire upon the rods, and hence there is always a strain or pull upon the wires in the direction of their length. The formation of similar spiral springs is continued along the
85 rods, until the bottom is of sufficient length, but if the rods are continuous from end to end the bottom will be too rigid, and there is no necessity for this, since if the springs 90
be put on in alternate pairs instead of alternating singly, the rods may be divided between every pair of wires which rest upon them, as at (*f*) for in this way their ends
95 are always held in place by those wires. If the spread from side to side be considerable, one or more additional supports may be introduced, by placing upon the other bars of the frame a rod, as at (*h*) similar in effect to the rods (*b*) and (*b'*). The 100
end of a wire is inserted into the bar at (*o*), thence over and around the rod (*h*) a few turns, thence leaving this on the upper side it is turned around a small rod placed as at (*p*), thence passing on to the rod of the 105
main set which is above, at (*r*), coming to and leaving that at the under side, and so on around (*s*) and on to the top of (*h*) winding around that again and entering the frame at (*o'*). Here it will also be seen 110

that pressure upon (*r*) will wind more of the wire (*o*) upon the rods (*h*, *p*, *r*, *s*) as before stated of the operation of the main rods. My "improved bottom" may thus be
5 employed in situations wherein from their necessary thickness other forms could not be introduced.

I am well aware that helical springs coiled upon rods have been employed in bed bot-

toms, etc., and of course I make no claim 10 broadly to that device, but

I do claim, as of my invention,

The spring bottom constructed as above described.

C. SCHRÖDER.

Witnesses:

J. P. PIRSSON,
S. H. MAYNARD.