

No. 828,784.

PATENTED AUG. 14, 1906.

W. M. STEVENSON.

WOVEN FABRIC.

APPLICATION FILED AUG. 3, 1905.

Fig. 1.

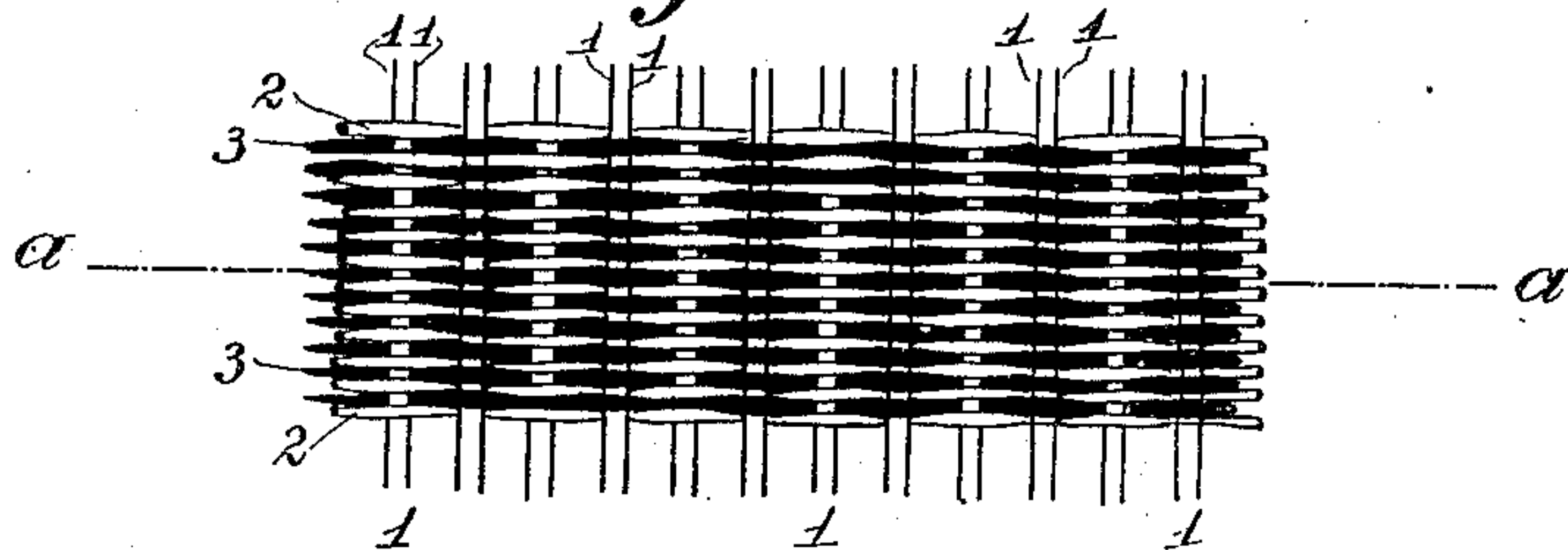


Fig. 2.

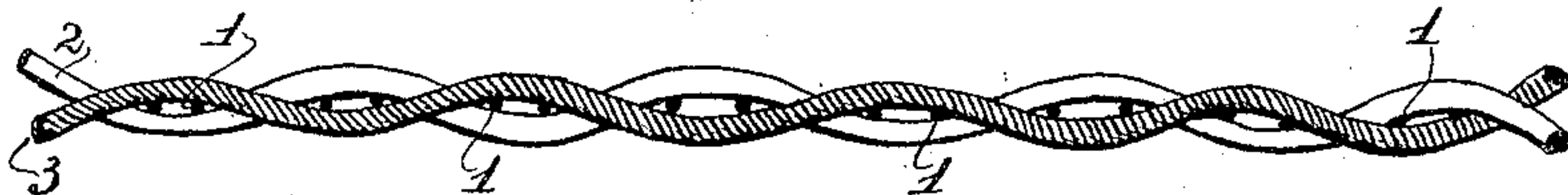


Fig. 3.

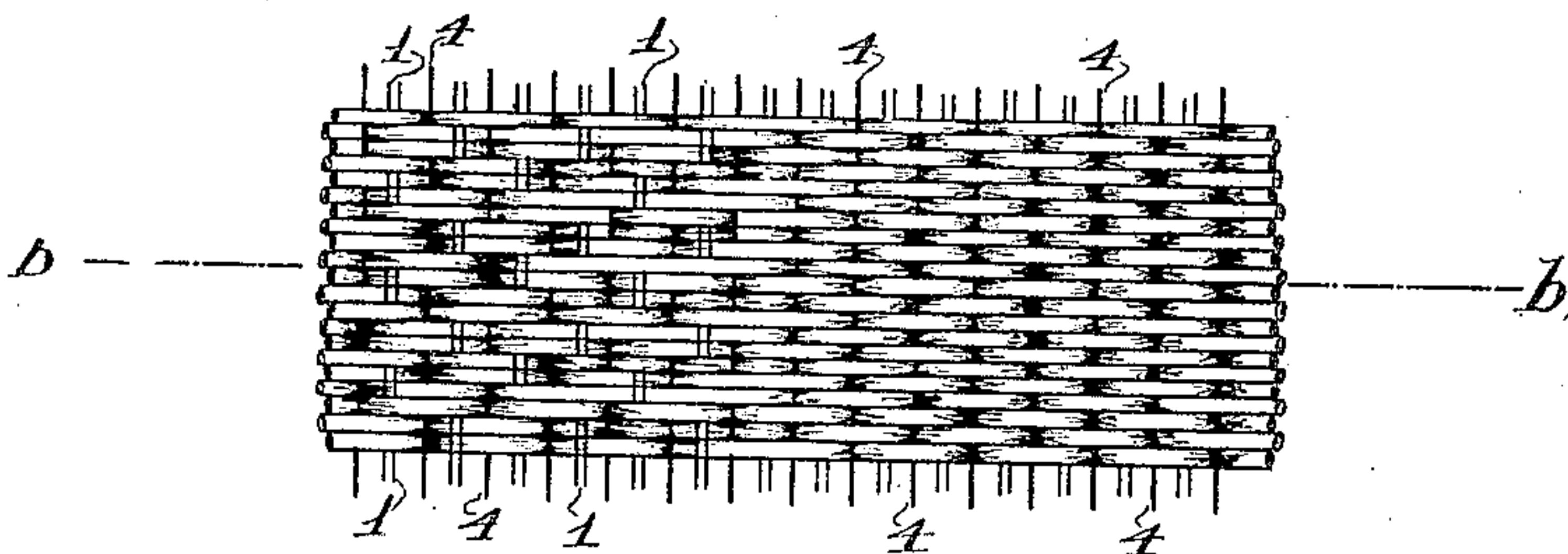
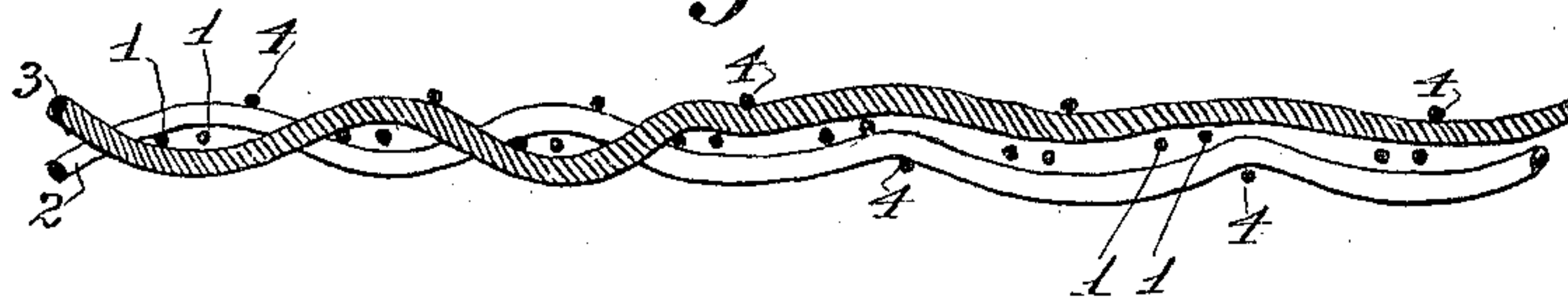


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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WOVEN FABRIC.

No 828,784.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed August 3, 1905. Serial No. 272,547.

To all whom it may concern:

Be it known that I, WILLIAM M. STEVENSON, a citizen of the United States, and a resident of Indian Orchard, Massachusetts, have
5 invented certain Improvements in Woven Fabrics, of which the following is a specification.

My invention relates to that class of woven fabrics in which twisted strands of paper are
10 used as weft-threads, the object of my invention being to permit of the weaving of such fabrics having weft-threads of relatively harsh or inferior character without injury to such weft-threads. This object I attain in
15 the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 represents a face view of a piece of fabric embodying my invention. Fig. 2 is an
20 exaggerated sectional view of part of the same on the line *a a*, Fig. 1. Fig. 3 represents a face view of another piece of fabric embodying my invention; and Fig. 4 is an exaggerated sectional view of the same on
25 the line *b b*, Fig. 3.

In weaving fabrics having weft-threads composed of strands of twisted paper some difficulty has been experienced, especially in
30 the use of paper of a harsh or brittle character, owing to the splitting or tearing of the paper if the same is sharply or abruptly bent in passing over or under the warp-threads, and this is especially the case if the warp-threads are relatively coarse in order to im-
35 part the necessary longitudinal strength to the fabric. In order to overcome this objection, I use a plurality of fine warp-threads spaced apart by the reed, but shedded as a unit, instead of the single heavier warp-
40 thread heretofore employed, so that in weaving the fabric the bends or curves assumed by the paper weft-threads are not so abrupt as to cause fracture or tearing of the

same however inferior in character the paper may be.

In the accompanying drawings I have
45 shown in Fig. 1 a fabric in which each set or group of warp-threads is composed of two threads 1 1, these two threads being spaced apart by the reed, but shedded as a unit and
50 being interwoven with the paper weft-threads 2 and 3 in an ordinary plain weave.

In the fabric shown in Figs. 3 and 4 I have combined with each pair of warp-threads
55 1 1 an additional warp-thread 4, which is used for tying or binding the weft-threads 2 and 3 in those portions of the fabric in which such weft-threads would otherwise float for a considerable space, the pair or group of
60 warp-threads 1 1 being thus relieved from this tying duty and prevented from appearing prominently on either face of the fabric.

Having thus described my invention, I claim and desire to secure by Letters Pat-
65 ent—

1. A woven fabric in which paper weft-threads are interwoven with fine warp-threads disposed in sets or groups, each set
70 consisting of a plurality of threads spaced apart but shedded as a unit, substantially as specified.

2. A woven fabric in which weft-threads of paper are combined with fine warp-threads disposed in sets or groups, each set comprising a plurality of threads spaced apart but
75 shedded as a unit and an additional thread which serves to tie the weft-threads in those portions of the fabric in which they would otherwise float, substantially as specified.

In testimony whereof I have signed my
80 name to this specification in the presence of two subscribing witnesses.

WILLIAM M. STEVENSON.

Witnesses:

WALTER CHISM,

JOS. H. KLEIN.