

M. K. & A. M. HENDERSON.
WATER HEATER.
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995,964.

Patented June 20, 1911.

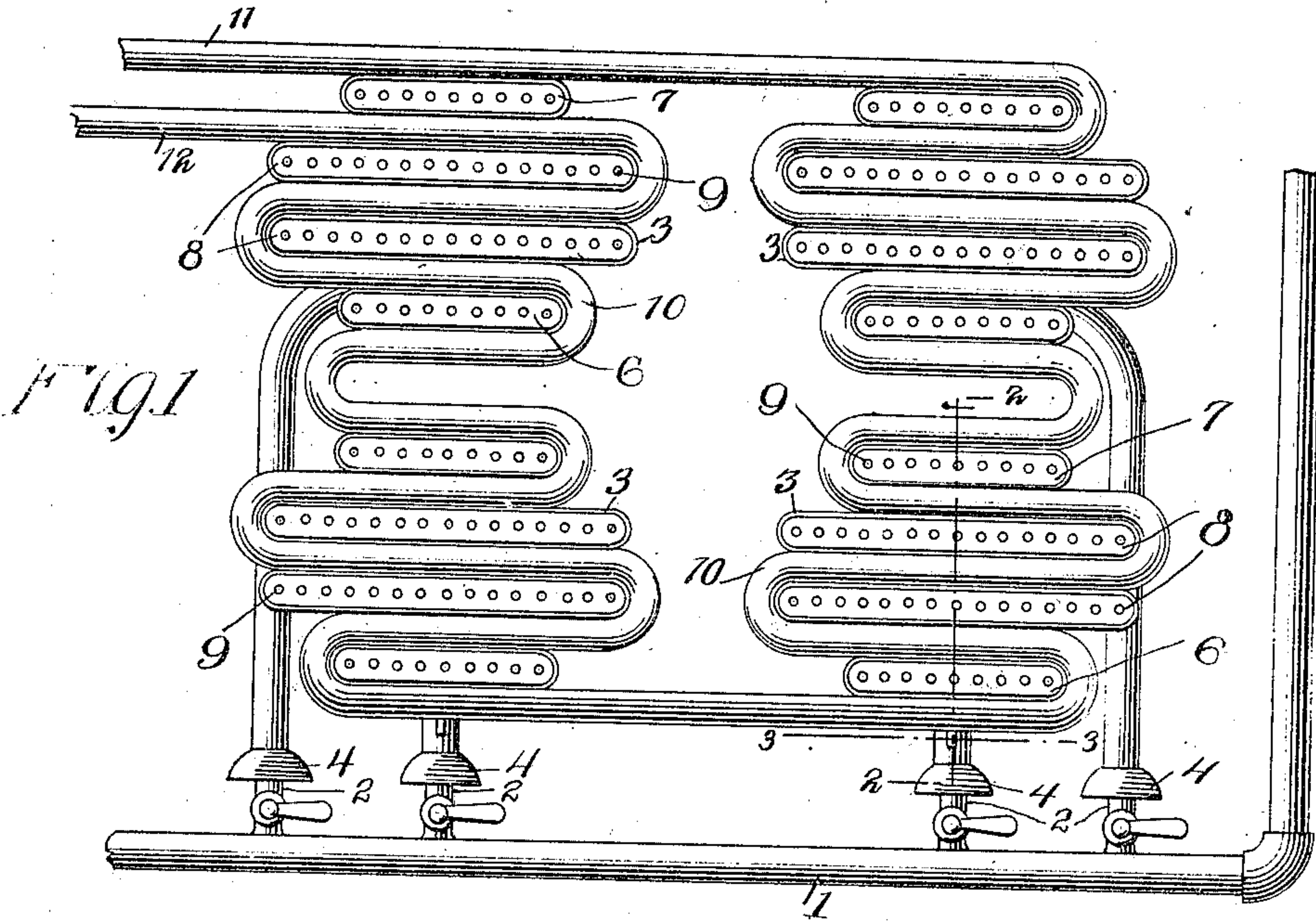


Fig. 2.

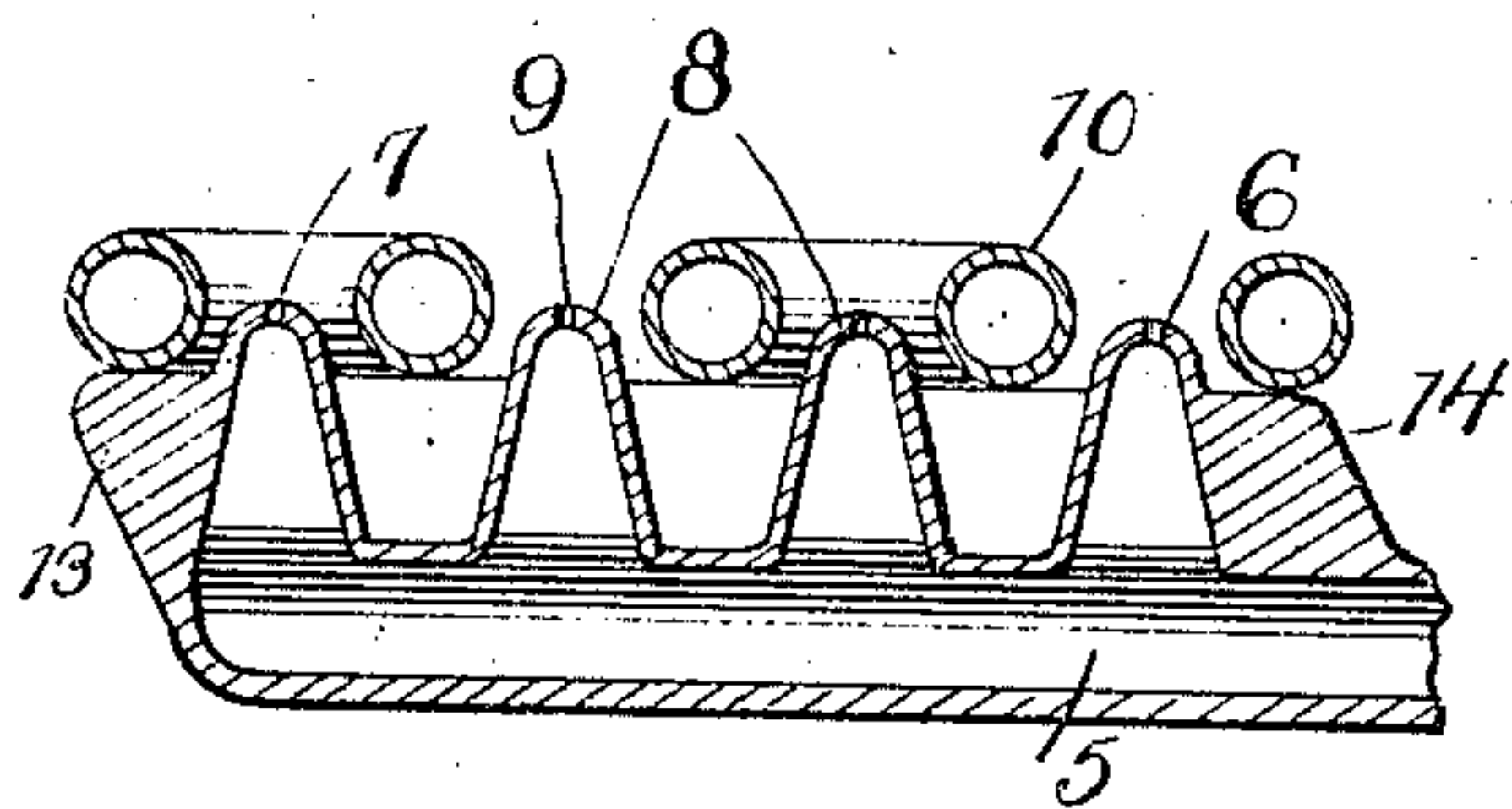
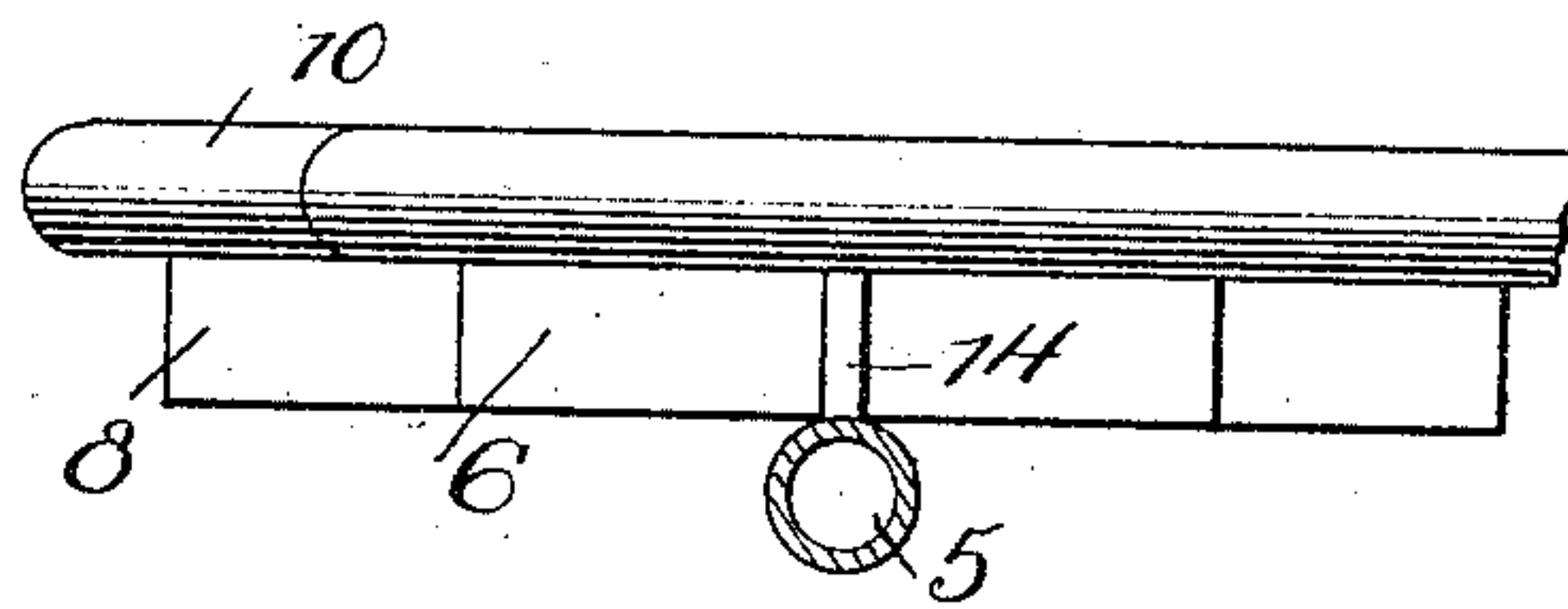


Fig. 3.



Witnesses
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MILES K. HENDERSON AND ANNA M. HENDERSON, OF PHILADELPHIA,
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WATER-HEATER.

995,964.

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To all whom it may concern:

Be it known that we, MILES K. HENDERSON and ANNA M. HENDERSON, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Water-Heaters, of which the following is a specification.

This invention relates to water heaters and more particularly to water heaters which are used in connection with gas ranges.

The object of the invention is to provide a novel form of burner and coil to be used in connection therewith whereby a relatively large heating surface is produced so that a comparatively small number of heat units will produce a large quantity of heated water.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which:

Figure 1 is a top plan view of a gas range showing coils applied thereto. Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1. Fig. 3 is a similar section taken on the line 3—3 of Fig. 1 at right angles to the section of Fig. 2.

Referring more particularly to the drawing 1 represents the gas supply pipe and 2 the supply nozzles which lead therefrom to the burners 3 which are supported upon the range in any suitable manner and have the customary mixing chambers 4 at their receiving ends. The burners each comprise a substantially tubular body 5 having a plurality of laterally projecting arms 6 and 7 arranged at opposite ends thereof and intermediate arms 8 arranged between the arms 6 and 7. All of these arms are provided with burner openings 9 and each arm is

separated from the other by spaces which permit the passage of the coils 10 leading from the inlet pipe 11 which is connected to a water supply, preferably a water boiler. As shown the coils are all connected in series and are connected at their opposite ends to an outlet pipe 12 which also leads to the boiler not shown. The coils are each interwoven between the burners in serpentine form and rest upon longitudinal projections 13 and 14 which extend vertically from the body of the burners 3 so as to hold the pipes in the position shown in Figs. 2 and 3, whereby they will be exposed to the direct flame of the burners.

In all devices of this character much better results are obtained when the burners are used for heating cooking utensils or the like because the heat is reflected and substantially confined about the coils.

Having thus described the invention what is claimed is—

In combination, a plurality of burners, each comprising a tubular body having a plurality of separated burner arms formed thereon and extending entirely above the body and overhanging the same at opposite sides, said burner arms having different lengths and said body having integral projections formed thereon at each end, said projections connecting with the end burner arms, and a continuous water coil supported on said projections and bent in serpentine form around and between the arms of each burner and subjected to the direct flame thereof.

In testimony whereof we affix our signatures in presence of two witnesses.

MILES K. HENDERSON.
ANNA M. HENDERSON.

Witnesses:

GEO. H. CRAFT,
CHARLES P. ULMER.