

Fig. 1.

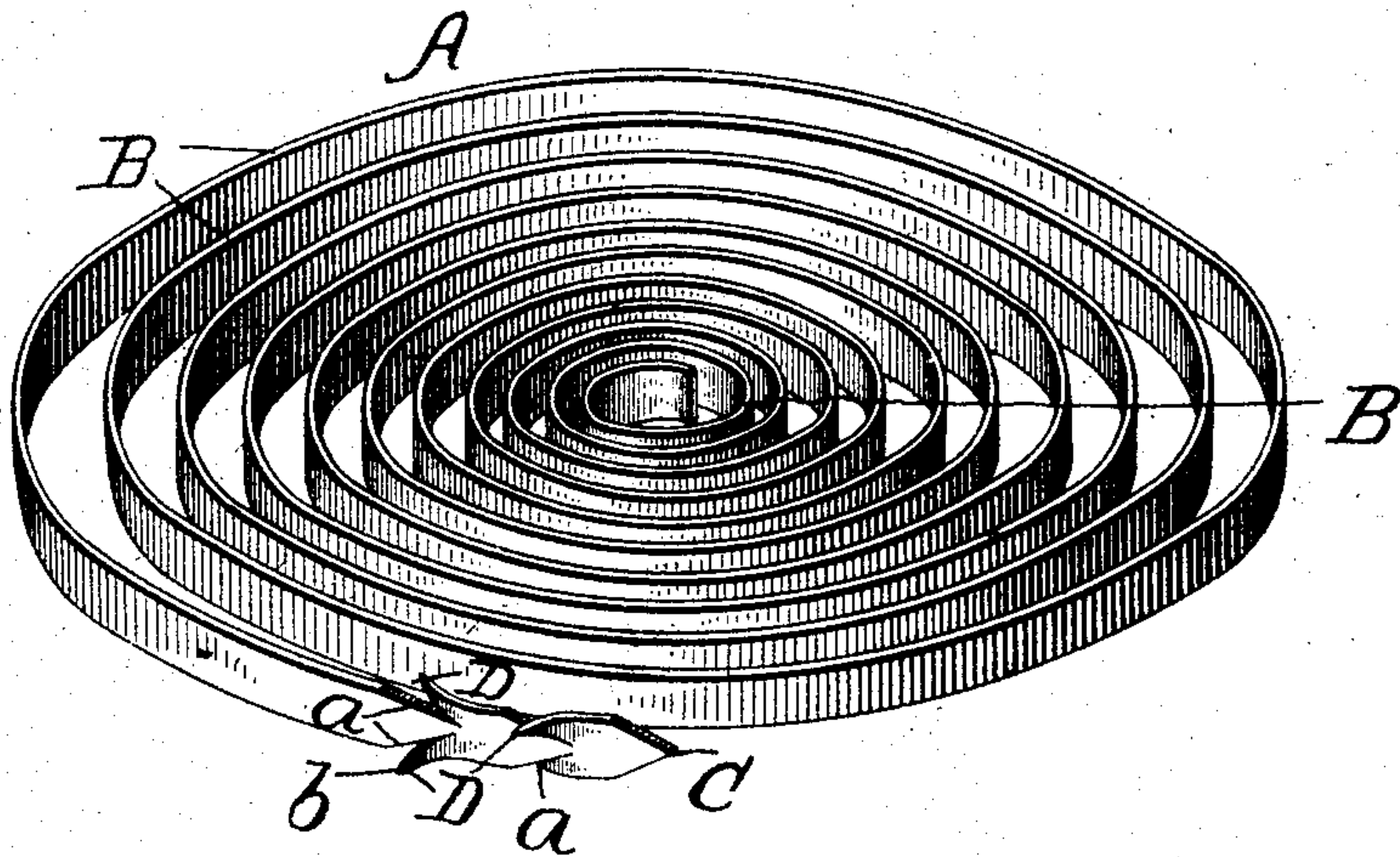


Fig. 2.

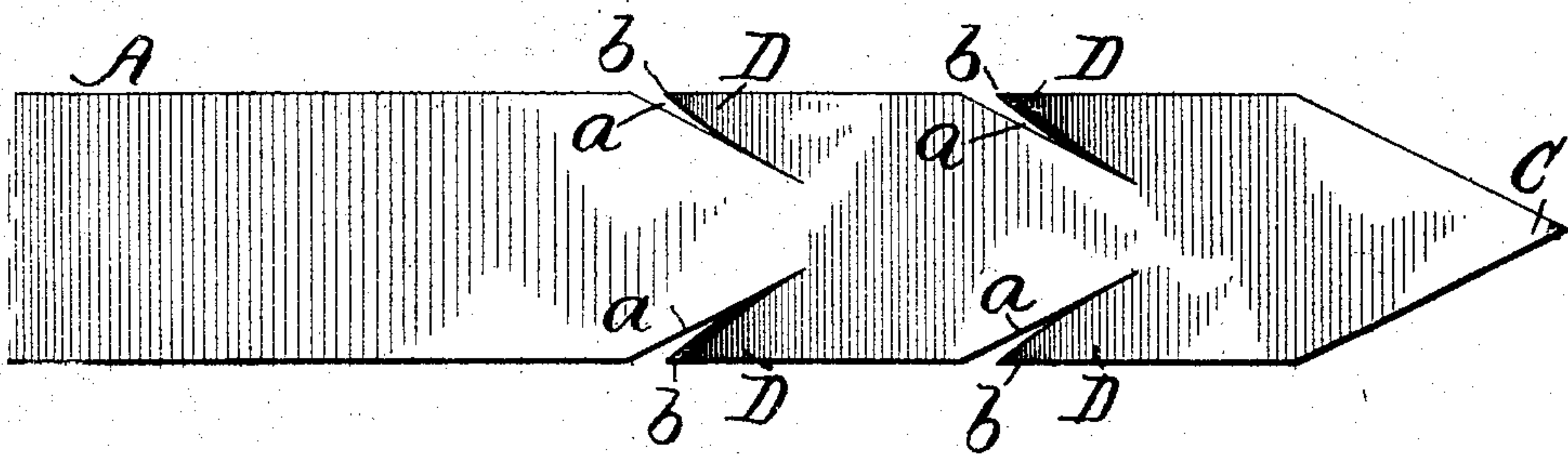
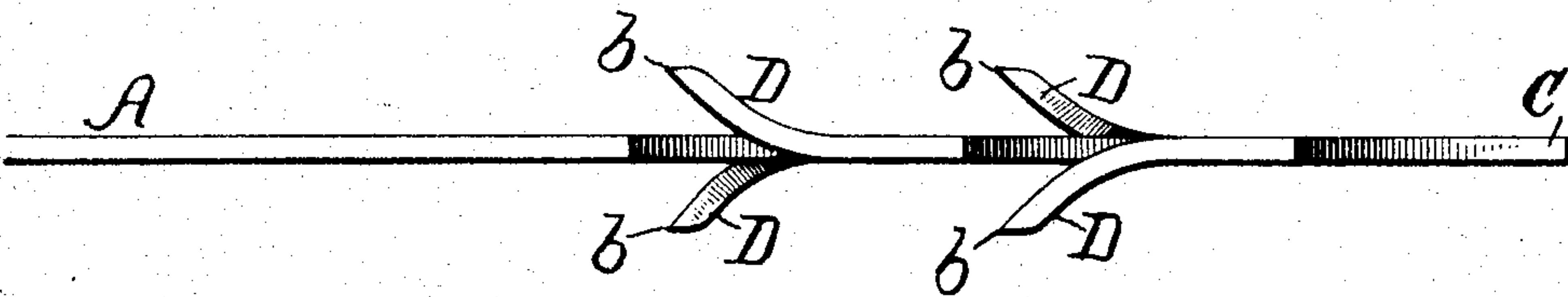


Fig. 3.



Witnesses:
E. B. Gaylord.
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Inventor:
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By *L. B. Coupland.*
Att'y in fact

DAVID HYMES, OF CHICAGO, ILLINOIS.

SEWER-OPENER.

No. 834,135.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed September 30, 1905. Serial No. 280,836.

To all whom it may concern:

Be it known that I, DAVID HYMES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Sewer-Openers, of which the following is a specification.

This invention relates to means for clearing out congested sewers and other pipe connections and passages that have become clogged, and has for its object to provide a device of this character which may be used with the greatest facility and success in opening up straight or tortuous passages.

The device is commercially termed and catalogued a "sewer-rod," but in its normal configuration consists of a number of concentric coils composed of a continuous strip of spring-steel properly tempered so as to readily conform to the change required in practical use.

In the drawings, Figure 1 is a view in perspective, showing the device in its normal or coiled-up position. Fig. 2 is an elevation of the working end, and Fig. 3 is a plan of the same.

A represents the sewer-opener, which is composed of a strip of tempered spring-steel.

In its normal condition the opener consists of a series of concentric coils B, which may be drawn out longitudinally as the device is gradually projected into a sewer or other passage that is to be opened. When the work has been completed and the device is withdrawn, it assumes the coiled-up compact form shown. The working end is provided with the sharp spear-point C, which will readily penetrate any obstruction lodged in the passage. This end is also provided back of the spear-point with a number of barbs D, formed on the respective edges of the strip of steel by diagonal slits *a* and the sharp points *b*, bent outward and projecting backward from the spear-point so as to not interfere with the penetrating force of the latter.

In practical working the opener is run into the passage or pipe until the obstruction is

reached when with a slight forward and backward movement the spear-point will penetrate the matter causing the obstruction, and the barbs on the pull-back will very soon disintegrate the mass and open up the passage so that it may be slushed out.

The device is ordinarily made in lengths ranging from twenty-five to one hundred feet so that an obstruction can be reached a long distance and opened up with the greatest facility by proper manipulation. This form of construction possesses a great advantage in that it can be manipulated in a small space by being uncoiled as it is inserted in the passage to be opened, and when withdrawn the resilience is so great as to automatically return to the coiled position.

Having thus described my invention, what I claim is—

1. A sewer or passage opener, comprising a resilient flat strip of metal capable of being extended and consisting normally of a series of concentric coils, one end of said strip being provided with a sharp spear-point.

2. A sewer-opener or the like, comprising a strip of metal capable of assuming two forms, that of a series of concentric coils, and that of being drawn out longitudinally in practical use, and having a sharp penetrating-point formed on one end thereof.

3. A sewer-opener, comprising a series of resilient coils capable of being extended longitudinally and provided on one end with a spear-point and barbs located back of said point.

4. A sewer-opener, comprising a strip of metal normally retained in a series of coils, but capable of being extended longitudinally and having a spear-point formed on the extended end and barbs pointing rearwardly.

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

DAVID HYMES.

Witnesses:

L. B. COUPLAND,
J. B. DONALSON.