## C. B. WANAMAKER & C. B. MILES.

## STRAW BUNDLE TIE.

APPLICATION FILED SEPT. 14, 1903. RENEWED JUNE 25, 1904.

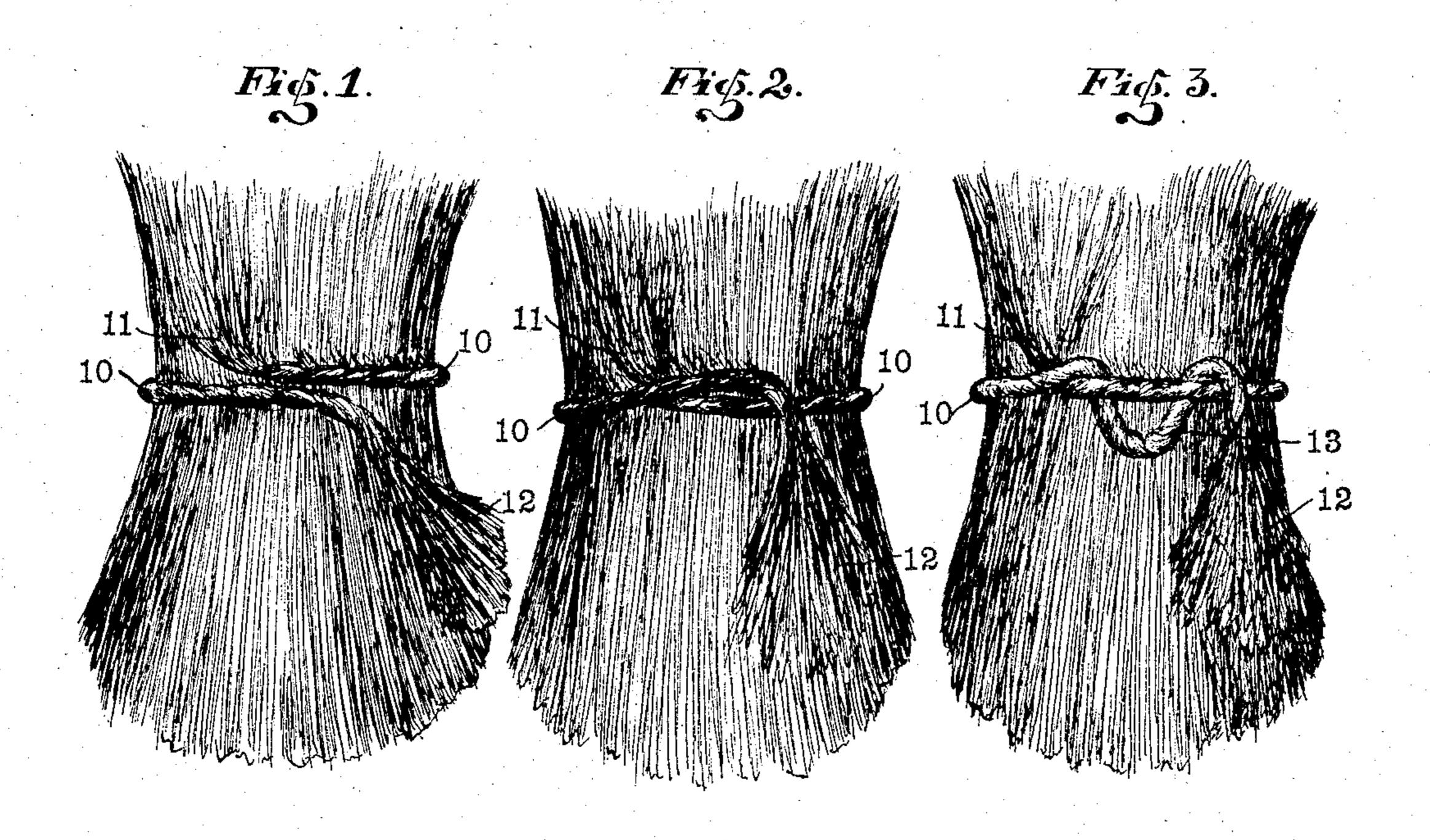
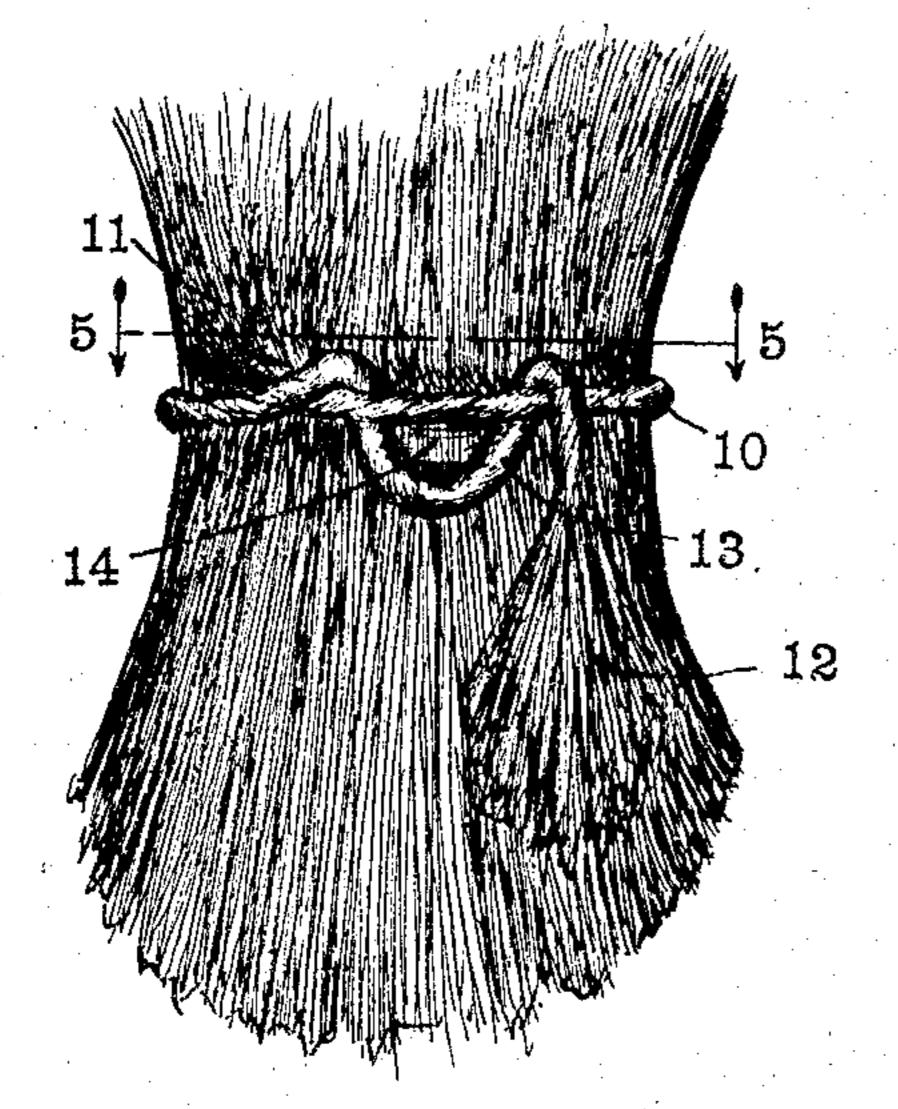
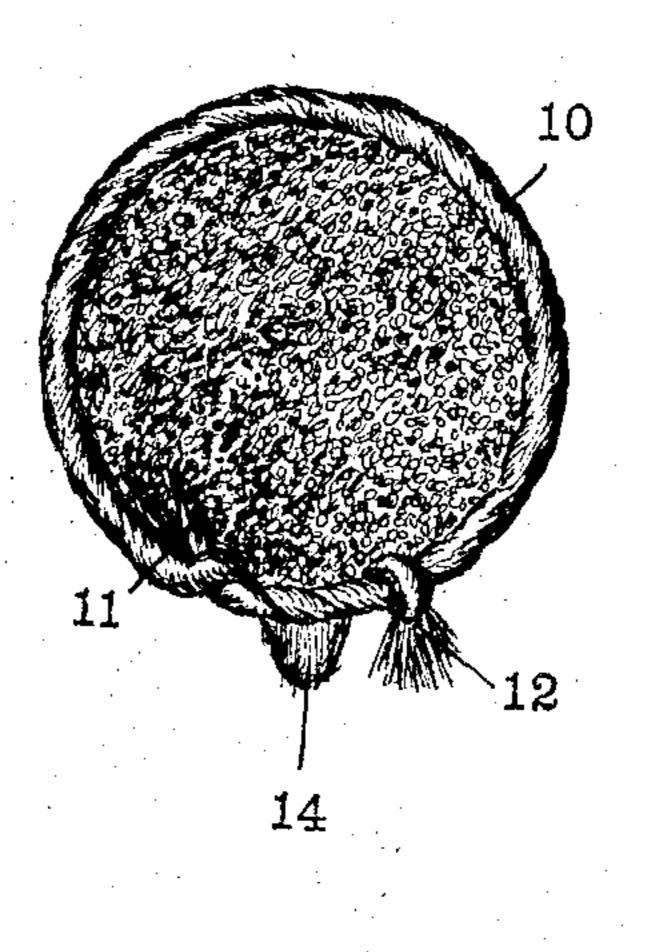


Fig. 4.



Witnesses Adelaide Kearns. HAWalsh,

Fig. 5.



Jwventow Charles B. Wanamaker Clarence B. Miles

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## United States Patent Office.

CHARLES B. WANAMAKER AND CLARENCE B. MILES, OF INDIANAPOLIS, INDIANA, ASSIGNORS TO THE BROWN STRAW BINDER COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF INDIANA.

## STRAW-BUNDLE TIE.

SPECIFICATION forming part of Letters Patent No. 780,392, dated January 17, 1905.

Application filed September 14, 1903. Renewed June 25, 1904. Serial No. 214,130.

To all whom it may concern:

Be it known that we, CHARLES B. WANA-MAKER and CLARENCE B. MILES, citizens of the United States, residing at Indianapolis, in the 5 county of Marion and State of Indiana, have invented certain new and useful Improvements in Straw-Bundle Ties, of which the following is a specification.

The object of our invention is to so manipu-10 late a rope about a bundle as to connect the opposite ends by an easily-formed tuck and lock that the bundle will be firmly held and the rope cannot be displaced.

The accompanying drawings illustrate our 15 invention.

Figure 1 is a side elevation of a portion of a bundle with the rope just formed. Fig. 2 is a similar view showing the final end of the rope shifted to the first position; Fig. 3, a 20 similar view showing a bight or final end of the rope tucked beneath the initial end. Fig. 4 is a similar view showing the lock drawn down between the arms of the bight, and Fig. 5 a section on dotted line 5 5 of Fig. 4.

There is formed from an external layer of material taken from the bundle, either in the manner described in Patent No. 553,203 by mechanism therein shown or mechanism such as is shown in our pending application Serial 3° No. 173,218, a binding-rope 10 the initial end 11 of which lies in and forms a part of the head end of the bundle and the final end 12 of which is brought around the bundle so as to overlap the initial end, as shown in Fig. 1. 35 Thereupon the final end is thrown over the initial end, so as to bind the said initial end between it and the bundle. Thereafter a bight 13 of the final end is drawn axially between the initial end and the bundle, so that the two 4° arms of the bight are held tightly by the initial end passing over the same. The tuck as |

thus formed might under many conditions remain in place; but in order to prevent any possibility of displacement we thereafter draw from the body of the bundle a bight of ma- 45 terial 14, which bight is drawn outward radially from the bundle between the initial end 10 and the two arms of the bight 13, thus securely locking the parts in position.

While we have described our tuck and lock 50 as formed from a rope which is formed in the peculiar manner mentioned, it will be readily understood that the same tuck and lock may be formed with a binding-rope which is en-. tirely separate from the bundle. In this case 55 the initial end is still held in position by the passage of the final end over it, so as to bind it between the final end and the bundle.

We claim as our invention—

1. A tuck and lock for bundles consisting 60 of an encircling rope having its final end laid over the initial end, and a bight of the final end drawn longitudinally of the bundle between the initial end and the bundle.

2. A tuck and lock for bundles consisting 65 of an encircling rope having its final end laid over the initial end and a bight of the final end drawn longitudinally of the bundle between the initial end and the bundle, and a bight or portion of material of the bundle 70 drawn radially therefrom between the initial end of the binding-rope and the arms of the bight of the final end, substantially as shown and described.

In witness whereof we have hereunto set our 75 hands and seals, at Indianapolis, Indiana, this 8th day of September, A. D. 1903.

CHARLES B. WANAMAKER. [L. s.] CLARENCE B. MILES. [L. s.]

Witnesses:
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