

T. P. HIMES.
TAPE.
APPLICATION FILED JUNE 22, 1909.

939,839.

Patented Nov. 9, 1909.

Fig. 4.



Fig. 1.

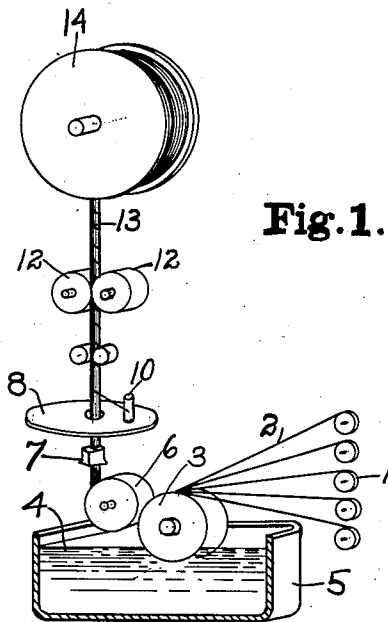


Fig. 2

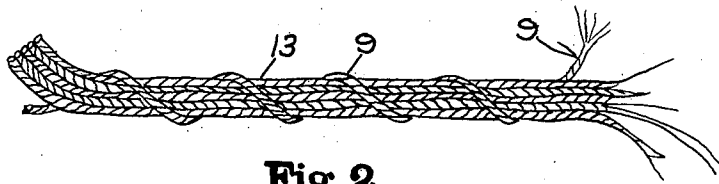
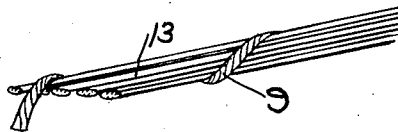


Fig. 3



WITNESSES
Willard H. Bardsley
E. J. Ogden

INVENTOR
Thomas P. Himes

BY *Howard E. Barlow*
ATTORNEY

UNITED STATES PATENT OFFICE.

THOMAS P. HIMES, OF EDGEWOOD, RHODE ISLAND.

TAPE.

939,839.

Specification of Letters Patent.

Patented Nov. 9, 1909.

Application filed June 22, 1909. Serial No. 503,711.

To all whom it may concern:

Be it known that I, THOMAS P. HIMES, a citizen of the United States, residing at Edgewood, in the town of Cranston, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Tape, of which the following is a specification, reference being had therein to the accompanying drawing.

The object of this invention is to provide a ribbon or tape formed of a plurality of longitudinal threads or strands laid side by side, the same being held or bound together by means of a thread being wound in a helical form around the same. An essential feature of this construction is that the binding thread, in addition to firmly holding the longitudinal threads together, may be of different colors, if desired, to also serve as an ornament to the tape and render the same attractive in appearance.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1—is a perspective view illustrating one means of forming the tape and winding a thread in a helical form about the same. Fig. 2—is an enlarged view showing the tape formed by longitudinal strands laid side by side and another thread wound in a helical form around the same. Fig. 3—is a perspective view of a short portion of this tape. Fig. 4—is a view illustrating a plurality of threads wound in opposite directions in a helical form around said tape.

In this machine 1 represents a plurality of spools for supplying the threads or strands from which the tape is to be formed. From these spools the proper number of threads 2, according to the width of the tape to be formed, are conducted over the roll 3, the lower side of which roll engages the liquid starch 4, or other adhesive material, contained in the tank 5. As the threads pass over the saturated surface of this roll they become thoroughly coated. From here the threads are led under the roll 6 and through the guide 7, which brings the strands close together and lays them side by side. After this they pass up through the revolving plate 8 and are bound together by means of the binding thread 9 which being led from

the spool 10 is carried around the same by said revolving plate 8 and laid in a helical form as said tape passes rapidly forward. After this binding thread has been laid in position the whole passes between the rolls 11—11 where the excess amount of adhesive material is squeezed out, the tape 13 then passes through the calender rolls 12—12 where it is finished and wound up on the reel 14 above.

It is found in practice where a tape is formed by longitudinal threads alone that the starch, or other adhesive material, with which the same is coated, will not bind the threads together sufficiently to prevent them from quickly separating when the tape is put to practical use. It is therefore found that the range of utility of a tape of this character is greatly increased by passing a binding thread around the same. This binding thread by coming in contact with the other heavily coated threads, or by other suitable means, will itself become coated with adhesive material, and in addition to its binding action in passing over the edge and around the tape to draw the threads together, it will engage, adhere and stick to each thread individually as it passes across the face of the tape, and as the whole is then carried forward and pressed together by calender rolls, or the like, a strong, durable and very inexpensive tape is produced. I preferably carry this binding thread around the tape in a helical form, which is a very simple and easy way of applying the same, but I do not confine myself to this particular form of laying on the binding thread as the same may be crossed or double-crossed, carried straight around, or in fact any other manner for binding the longitudinal threads together by a single binding thread. This binding thread may be made of the same or different material or color than the groundwork of the tape and a number of threads may also be used, if desired, as illustrated in Fig. 4, carrying the same around the tape in opposite directions to form fancy figures thereon and increase the binding effect.

The principal use of a tape of this character is to take the place of narrow woven ribbon for doing up dainty parcels and packages, and other purposes where a tape or ribbon is used but once, or a very few times, before it is thrown away.

My improved tape is extremely simple and

inexpensive in construction and by the use of the binding thread its strength and durability is greatly increased, said binding thread also when applied in different colors serves to ornament the tape and render the same attractive in appearance.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

10 1. A tape or ribbon of the character described, comprising a plurality of longitudinal threads laid side by side, adhesive material on said threads to assist in binding the same together and a binding thread
15 wound around said longitudinal threads to bind said latter threads together.

2. A tape or ribbon of the character described comprising a plurality of longitudinal threads laid side by side, adhesive material on said threads, and a plurality of
20 binding threads wound around said longitudinal threads in a helical form to bind said latter threads together.

3. A tape or ribbon of the character described comprising a plurality of longitudinal threads laid side by side, adhesive material on said threads to assist in binding the same together, and a plurality of binding
25 threads wound around said longitudinal

threads in a helical form to bind said latter threads together. 30

4. A tape, comprising body strands arranged one alongside the other, a binding strand passing spirally around the said body strands and pressed into intimate contact
35 with the same, and an adhesive substance connecting the said body strands and binding strands with each other.

5. An article of manufacture, a ribbonette consisting of a series of parallel strands, disposed in a flat formation, a binder strand
40 spirally disposed about said parallel strands, and adhesive material uniting all of said strands.

6. An improved article of manufacture, consisting of a ribbonette embodying a series of parallel strands disposed side by side in a single thickness, and a binding strand
45 spirally disposed about said series of strands, and adhesive material uniting all of said strands together. 50

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

THOMAS P. HIMES.

Witnesses:

HOWARD E. BARLOW,
E. I. OGDEN.