

(No Model.)

J. M. HARPER.

TAPE LINE CASE.

No. 375,420.

Patented Dec. 27, 1887.

Fig. 1.

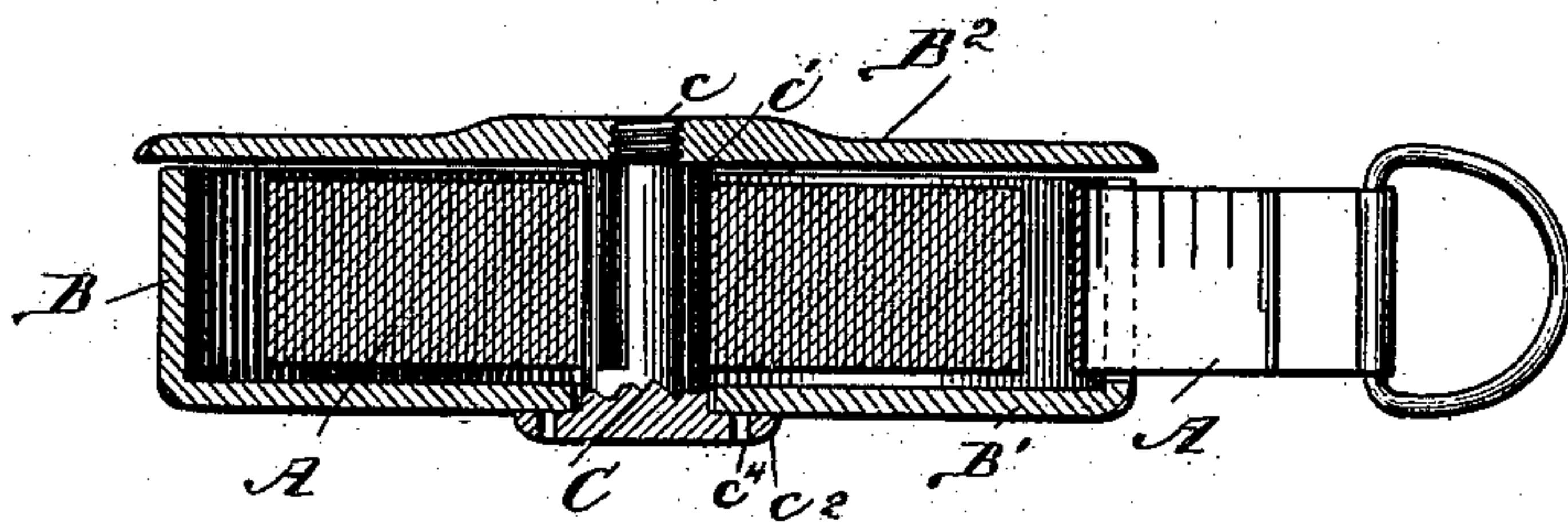


Fig. 2.

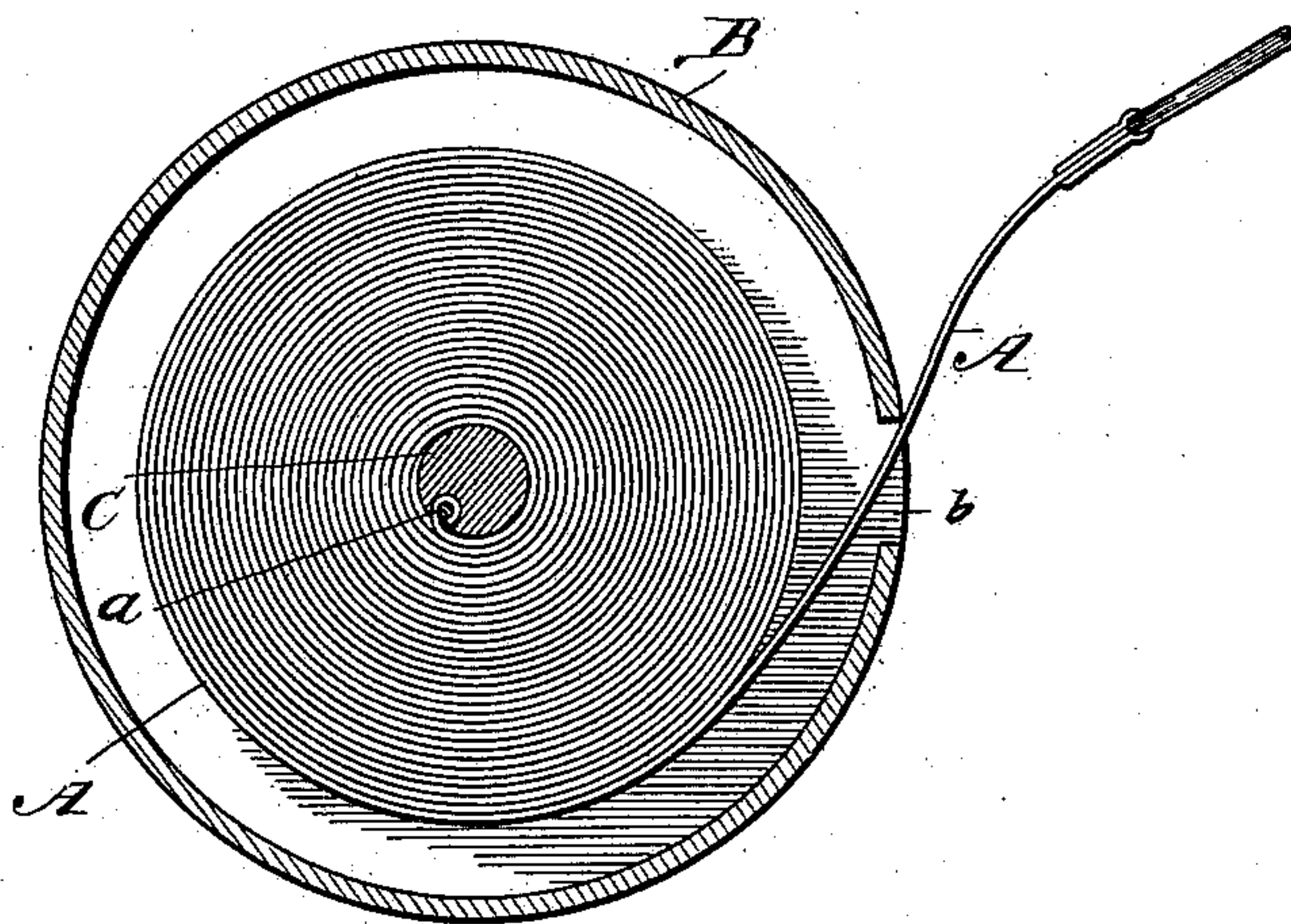
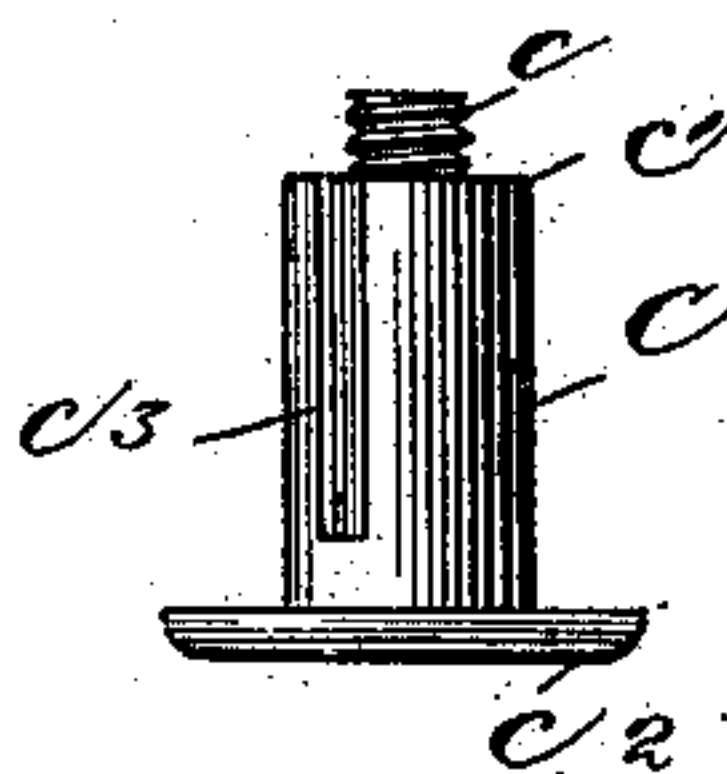


Fig. 3.



Witnesses.

W. Fossett  
F. Mills.

Inventor  
James M. Harper  
By Price & Fisher  
His Attys.



# UNITED STATES PATENT OFFICE.

JAMES M. HARPER, OF PEORIA, ILLINOIS.

## TAPE-LINE CASE.

SPECIFICATION forming part of Letters Patent No. 375,420, dated December 27, 1887.

Application filed May 2, 1887. Serial No. 236,843. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. HARPER, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Cases for Tape-Lines and Similar Strips or Ribbons, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention has relation to the improvements of that class of tape-line cases wherein the winding of the tape-line is effected by the operation of a portion of the inclosing-casing as distinguished from the class of tape-line cases wherein the winding of the line is effected by a crank-handle engaging with the hub, to which the inner end of the line is connected.

The object of my present invention is to improve and simplify the construction of the casing, so as to render the same more easy of operation, less liable to become broken or get out of repair, and to permit the tape-line to be more readily replaced when necessary. This object of invention I have accomplished by the construction of case hereinafter described, illustrated in the accompanying drawings, and particularly defined in the claims at the end of this specification.

Figure 1 is a view in central vertical section through the tape-line case and line. Fig. 2 is a view in horizontal section, the line being shown in plan. Fig. 3 is a detail side view of the central shaft.

The casing wherein the tape-line A is inclosed is formed of dual sections, preferably composed of metal, hard rubber, celluloid, vulcanized fiber, or like material, and the rim B and one side, B', of the casing are, by preference, formed in single piece with a central perforation adapted to receive the shaft C, to which will be connected the inner end of the tape-line or other strip, and upon which this line will be wound. The side or section B<sup>2</sup> of the inclosing-casing is provided at its center with a perforation adapted to receive the reduced end c of the shaft C, and this reduced portion of the shaft C, as well as the perforation in the plate B<sup>2</sup>, is preferably screw-threaded, in order to firmly hold the plate in position against the shoulder c' at the base of

the reduced portion c of the shaft. One end of the shaft C will be provided with the guard flange or head c<sup>2</sup>, which will bear upon the outer face of the side B' of the case, and the distance between this flange c<sup>2</sup> and the shoulder c' of the shaft will be such that when the side B<sup>2</sup> of the case has been screwed firmly against the shoulder c' the inner face of the side B<sup>2</sup> will lightly touch the edge of the rim B of the case. It will be readily understood that, if desired, the side or section B<sup>2</sup> of the case may be riveted to the reduced end of the shaft C instead of being united thereto by means of the screw-threads, although this last construction I regard as the preferable one, as it enables the case to be readily taken apart when it becomes necessary to remove the tape-line A in event it should become worn or broken. The side of the central shaft, C, is preferably provided with the longitudinal groove c<sup>3</sup>, within which may be slipped from the end the pin a, attached to the inner end of the tape-line A, so that when it is desired to replace the tape-line (or other strip) it is only necessary to remove the side or section B<sup>2</sup> of the case and withdraw the pin a in order to permit a new line or strip to be set within the case. The head c<sup>2</sup> of the central shaft, C, is preferably furnished with seats c<sup>4</sup>, or other like provision, to receive the end of a screw-driver or wrench, which will enable the end c of the shaft to be more firmly screwed into the section B<sup>2</sup> of the base. The rim B of the case will be provided with the usual slot, b, through which the tape-line will pass.

From the construction, as thus defined, it will be seen that when the tape-line is to be placed within the case it is only necessary to slip the pin a, attached to the inner end of this line, into the slot c<sup>3</sup> of the shaft C, the reduced mouth of this slot serving to hold the pin securely in place. The side or section B<sup>2</sup> of the case will next be screwed upon the reduced end c of the central shaft, C, until the inner face of this plate bears firmly against the shoulder c' of the shaft. With the parts in this position, the tape-line can be readily withdrawn from the case, and when it is to be rewound it is only necessary to grasp in one hand the rim B of the case, and with the other hand turn the plate or section B<sup>2</sup>, thereby causing the shaft C to revolve and wind the line.



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

1. A tape-line case comprising dual sections  
5 arranged to revolve with respect to each other,  
one of said sections being provided with a  
slotted flange, through which the tape-line  
may pass, and a central shaft for uniting said  
sections and adapted to hold the tape-line,  
10 said shaft being provided with a head at one  
end and having its opposite end fixed to the  
adjacent section so as to revolve therewith,  
substantially as described.

2. A tape-line case comprising dual sections  
15 arranged to revolve with respect to each other,  
one of said sections being provided with a  
slotted flange through which the tape-line will  
pass, one of said sections being provided with  
a central opening, and a shaft passing through  
20 said central opening and having a threaded  
end for attachment to the opposite section,  
substantially as described.

3. A tape-line case comprising dual sections  
arranged to revolve with respect to each other,  
one of said sections being provided with a 25  
slotted flange through which the tape-line may  
pass, and a central shaft for detachably unit-  
ing said sections, said shaft being provided  
with a head at one end and with its opposite  
end reduced and threaded, whereby a shoulder 30  
is formed against which one side of the casing  
may bear, substantially as described.

4. A tape-line case comprising dual sections  
arranged to revolve with respect to each other,  
a central shaft for detachably uniting said sec- 35  
tions, said shaft being provided with a recess  
adapted to hold the inner end of the tape-line,  
substantially as described.

JAMES M. HARPER.

Witnesses:

GEO. P. FISHER, Jr.,  
I. B. CARPENTER.