

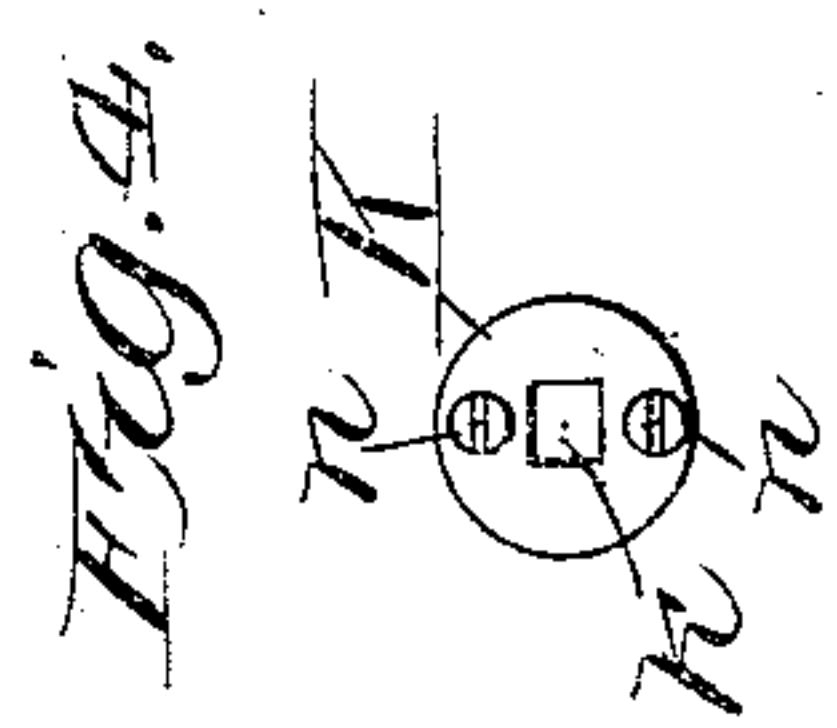
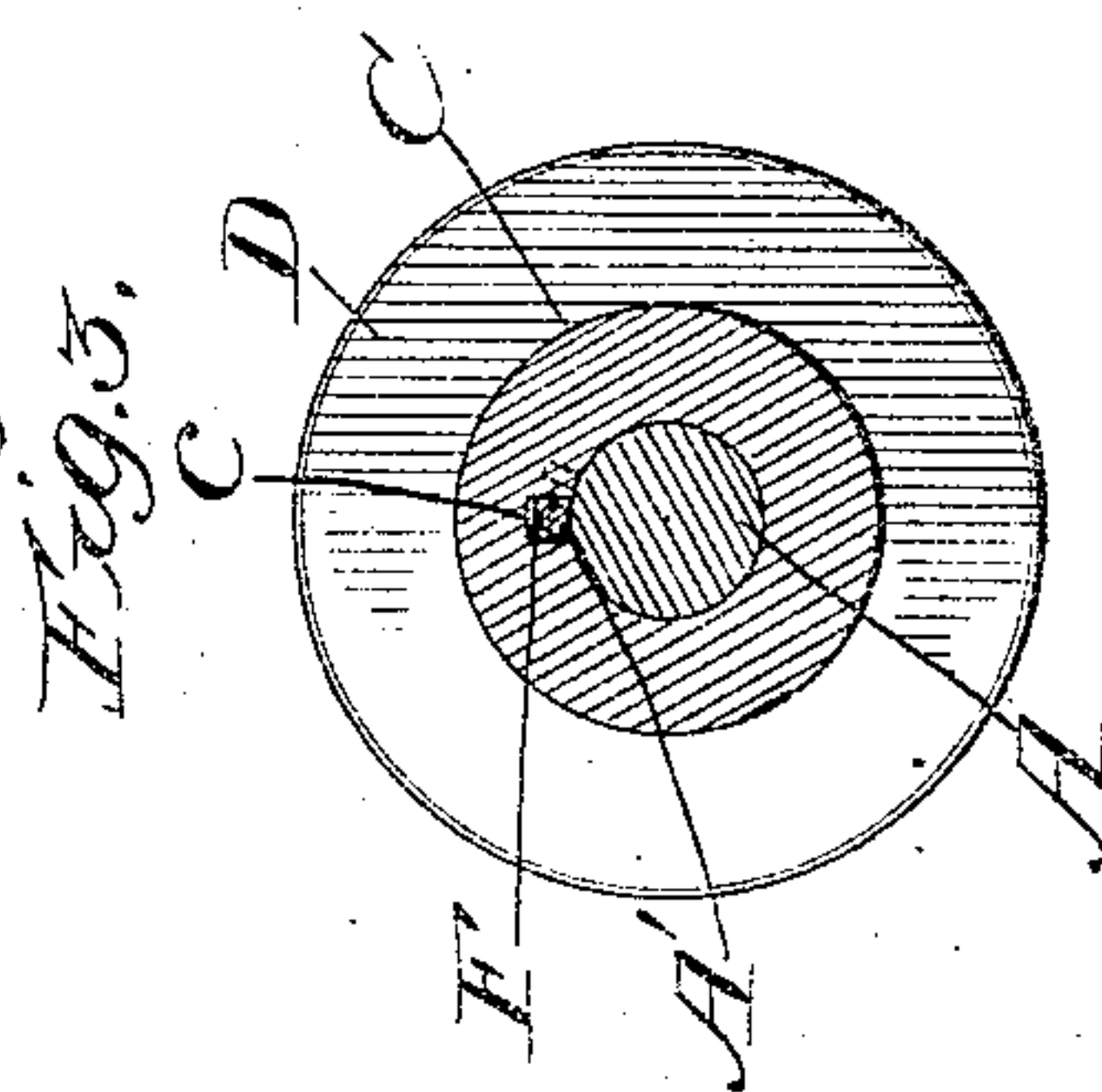
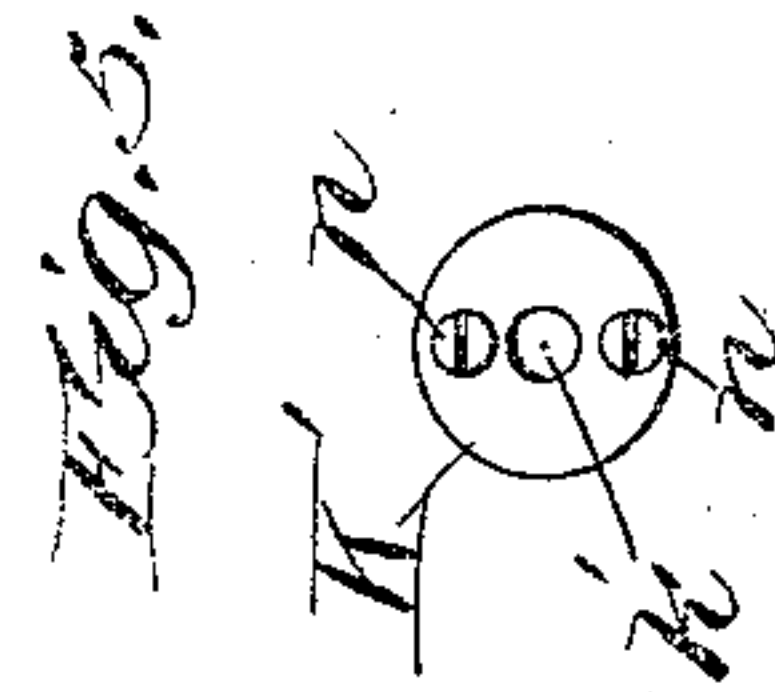
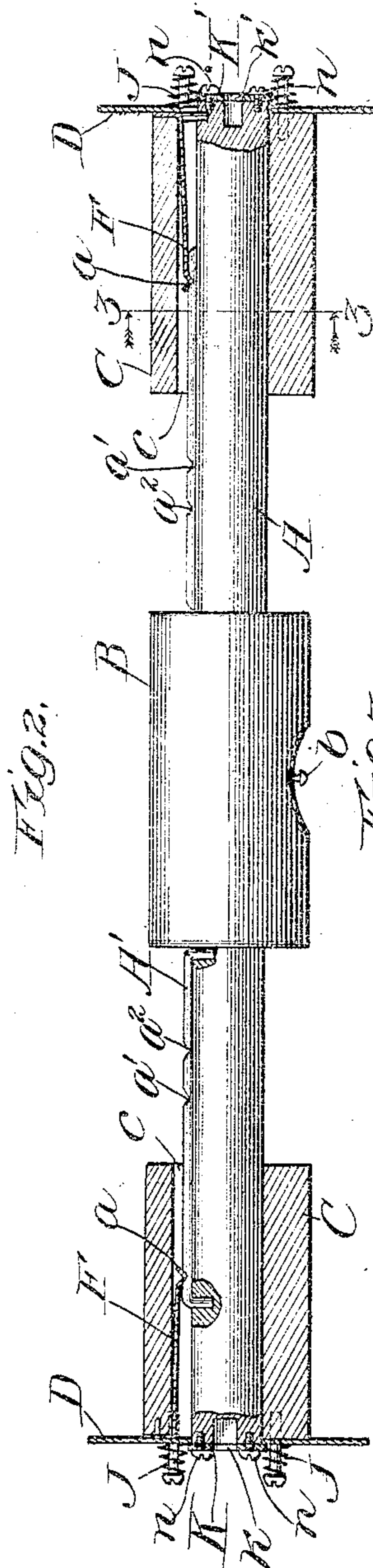
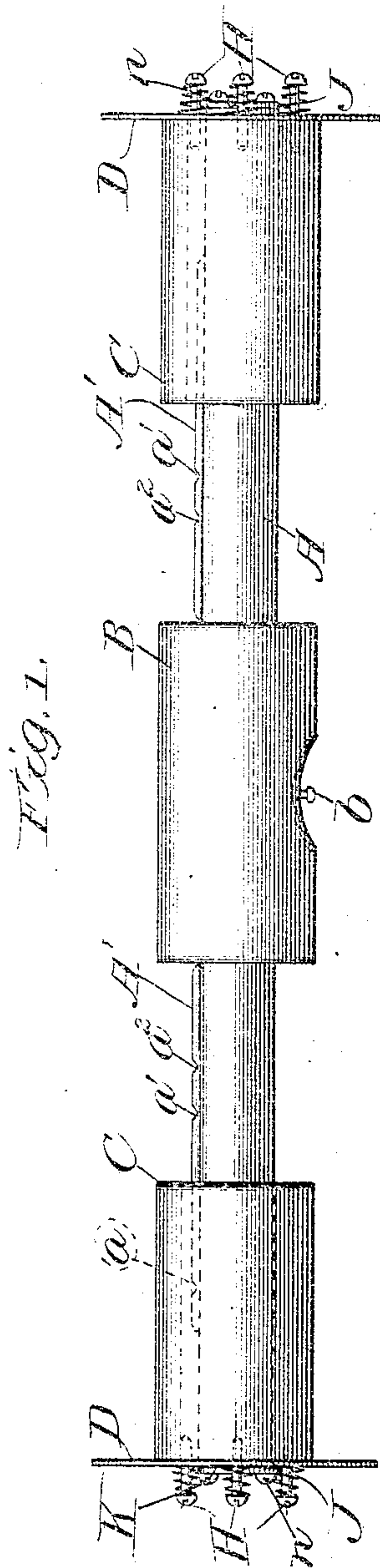
No. 875,505.

PATENTED DEC. 31, 1907.

M. CLARK.

TAKE-UP ROLL FOR AUTOMATIC MUSICAL INSTRUMENTS.

APPLICATION FILED APR. 19, 1906.



Witnesses:

Chas. W. Merrill
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Inventor:

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UNITED STATES PATENT OFFICE.

MELVILLE CLARK, OF CHICAGO, ILLINOIS.

TAKE-UP ROLL FOR AUTOMATIC MUSICAL INSTRUMENTS.

No. 875,505.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed April 19, 1906. Serial No. 312,676.

To all whom it may concern:

Be it known that I, MELVILLE CLARK, 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 Take-Up Rolls for Automatic Musical Instruments, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The purpose of this invention is to provide a take-up roll for the controlling sheet of an automatic musical instrument which shall be adapted to serve that purpose for sheets of the several different widths which are commonly employed,—to wit, for 58 notes, 65 notes and 88 notes, respectively.

The invention consists in the features of construction set out in the claims.

In the drawings:—Figure 1 is a side elevation of a take-up roll embodying this invention. Fig. 2 is a partly sectional side elevation, section being made axially at portions of the length. Fig. 3 is a section at the line 3—3 on Fig. 2. Figs. 4 and 5 are elevations of the driving and centering escutcheon plates, respectively.

A is a shaft of the roll. It is provided at one end with suitable means for driving engagement and at the other end with suitable means for centering it. These means may be in any of the customary forms.

Upon the shaft, occupying the middle portion of its length, there is a short section of roll, B, which is made fast to the shaft in any convenient manner and is preferably integral therewith, and has the customary button, *b*, for attaching the end of the controlling sheet.

Mounted upon the shaft at opposite sides of the middle portion, B, there are end sections, C, C, of the roll. Upon the outer end of each of the sections, C, there is secured a flange, D. The mode in which it is thus secured will be hereinafter described. The two end sections, C, C, with their respective flanges, D, are adapted to be adjusted longitudinally on the shaft, A, and set at different distances from the middle portion, B. When they are set at the extreme outer positions, the distance between their flanges is designed to be such as to accommodate the 88-note controlling sheet. For holding them at this position, there is lodged in a longitudinal groove, *c*, in each end section, C, a spring catch, F, secured at one end to the

roll section and adapted at the other end to engage one of the three notches, *a*, *a*¹ and *a*², formed in a rib, A¹, which is produced on the shaft, A, preferably by a piece of wire bent at the ends for engaging the shaft as shown in Fig. 2. When the catches of the two flanges are engaged in the notches, *a*, the flanges are spaced longitudinally of the roll for an 88-note sheet. The roll sections, C, C, may be moved longitudinally toward each other by applying moderate pressure, and the catches being engaged with the notches, *a*¹, the flanges are spaced for a 65-note sheet. Being similarly moved still farther inward toward the middle section, B, the catches become engaged with the notches, *a*², and thereby the flanges are held suitably spaced apart for a 58-note sheet. The ribs, A¹, engaging the same longitudinal groove, *c*, of the respective end sections, C, prevent the latter from turning on the shaft. The means for driving engagement of the roll is preferably a mere end plate or escutcheon, K, having a square hole, *k*, and the means for centering the opposite end is a similar escutcheon, K¹, having a round hole, *k*¹. These escutcheon plates being each slightly greater in diameter than the roll shaft, and, therefore, than the center opening in the movable section and in the flange plates, serve to prevent the section, C, from coming off the shaft, said escutcheon plates being applied and screwed to the end of the shaft by screws, *n*, after the sections, C, C, are placed thereon.

In order to adapt the flanges to accommodate themselves slightly to the expansion and contraction of the music sheet which occurs through changes of moisture and temperature in the atmosphere, they are each attached to the roll sections by means of three screws, H, H, H, on which it is guided and under whose heads around the screws are lodged coil springs, J, which yield and permit the flanges to follow the expansion and contraction of the paper.

I claim:—

1. A take-up roll for automatic musical instruments comprising a shaft; two roll sections mounted thereon having flanges at their outer ends, the shaft having notches at positions in opposite directions from the middle point of its length and disengageable catches mounted in the respective roll sections for engaging the notches.

2. A take-up roll for automatic musical in-

struments comprising a shaft having a short roll section at the middle of its length, and two supplemental roll sections adjustable on the shaft toward and from said middle roll section, the shaft and movable roll sections having cooperating means for guiding the latter in longitudinal movement along the former and preventing their relative rotation, the shaft having notches at a plurality of positions within the range of adjustment of the end sections, each end section having disengageable catches for engaging said notches.

3. A take-up roll for automatic musical instruments comprising a shaft having a middle roll section rigid therewith; two roll sections mounted on the shaft at opposite sides of the rigid section having flanges at their

outer ends, the shaft having longitudinal ribs at opposite sides of the middle roll section and the movable roll sections having grooves for engaging the ribs, the ribs having notches at points in opposite directions from the middle roll section, and spring catches lodged in the grooves of the movable roll sections respectively, adapted to disengage and engage the notches.

In testimony whereof, I have hereunto set my hand at Chicago, Illinois, this 14th day of April, A. D., 1906.

MELVILLE CLARK.

Witnesses:

CHAS. S. BURTON,
M. C. C. TRUDE ADY.