My invention relates to strap ends and specifically to a clip adapted to form a member on a strap end to clamp said strap end to leather or other types of fabrics. My invention is particularly adapted for use on lingerie straps to fasten various parts of ladies' lingerie together and also is particularly adapted for use on a shoe strap adapted to bind a pump or low shoe to the wearer's foot. As the base member, the visible portion of the strap and clip may be attractively ornamented in any desired fashion and as the clamping lever, or the actual fastening member is concealed I provide a strap end of attractive appearance. While, however, as shown in the drawing, the strap end preferably consists of an end of a chain such as would be used in lingerie straps, it may consist of any suitable type of fabric, textile, leather, or otherwise.

The clip per se is in a certain manner similar to a certain type of back collar button now on the market. This type of collar button, however, is merely used to fasten a collar to the rear end of the shirt collar, in other words, merely to secure two pieces of fabric together and has not so far as I am aware, been used or so modified as to form a gripping clip on a strap end where there is a lateral pull, in fact a collar button of this type would be unable to suitably clip a fabric edge where there is a lateral pull. My invention consists therefore of the conception that this general type of collar button might with modification be used as a strap end clip and I therefore so modify the construction thereof and attach it to a strap end that it may be used for this purpose. I thus provide means in line with the clamping lever thereof to attach a strap end thereto and I have preferably downwardly bevelled or flattened the end of the downwardly projecting spur on the clamping lever to make it substantially parallel with the base member in closed position and strike up or otherwise form a curved wedge lip on the base member so that when the clamping lever thereof is pivoted to closed position the flattened spur and wedge lip may form a binding wedge to clip a fabric end and hold it tightly against a lateral pull.

These and such other objects of my invention as may hereinafter appear will be best understood from a description of the accompanying drawings, which illustrate various embodiments thereof.

Figure 1 is a perspective view of my clip, with the clamping lever in open or inoperative position.

Fig. 2 is a sectional view of my clip taken through line 2—2 of Figure 1.

Fig. 3 is a sectional view of my clip, with the clamping lever in closed or operative position.

Fig. 4 is an enlarged perspective view of a part of the clamping lever associated with the diaphragm spring shown in dotted lines.

In the drawings, 10 generally represents a strap end clip constructed in accordance with my invention. This clip includes the base member 12 having an arcuately curved or bowed lower edge 14 terminating in the upper ends 16. The diaphragm spring or top plate 18 is inserted within the raised upper ends 16 of the base member after the clamping lever 19 has been suitably inserted between the diaphragm spring 18 and the base member 12 in a manner to be explained, and the edges of the base member 16 are crimped or otherwise secured as at 20 over the outer edges of the diaphragm spring 18 to firmly secure the diaphragm spring 18 and clamping lever 19 to said base member 12 with the lower edge of said base member 12 in spaced relationship to the surface of the diaphragm spring 18. The diaphragm spring member 18 is provided with the preferably oblong central open portion 22. The shoulders 24 are struck up or otherwise formed on each side of said central open portion 22 and the upwardly curved wedge lip 26 is suitably bevelled towards an end 28 of said open portion 22 by striking it up therefrom or in any other suitable fashion. I also provide suitable means 30 in line with the opposite end 32 of said open portion for attaching a strap end 34 thereto. In my preferred embodiment said means comprises the aligned holes 36 and 38 in the diaphragm spring 18 and base member 12 respectively. While, as stated, I have shown the strap end
34 as consisting of an end of a chain 34 showing a construction particularly adapted for lingiatric straps, it is apparent that the strap end 34 may consist of leather or textile fabric or any other suitable material. I also provide the clamping lever 19 suitably mounted on said base member 12 and diaphragm spring 18. Said clamping lever 19 is provided with the pivot ears 40 preferably integrally formed on each side thereof. In assembly, the lower end of the clamping lever 19 is inserted through the open portion 22, of the diaphragm spring 18 and the pivot ears 40 thereof suitably secured within the struts up shoulders 24 before the diaphragm spring is inserted within the base member 12 and the edges 15 of said base member crimped over as at 20 to bind the diaphragm spring thereto. The clamping lever 19 is provided with the depending lower end 42, preferably curved and terminating in the lower edge 44 adapted to contact the upper surface of the base plate 12 at all times in open or closed position. Contact the upper surface of the base plate 12 to extend the diaphragm spring 18 upwards to effect a downward pressure on said clamping lever 19 in either open or closed position. As stated, the lower end 42 of said clamping lever 19 is preferably curved suitably the upper edge of the base plate 12 in either open or closed position. The clamping lever 19 is provided with the clamping upper end 48 which is preferably provided with the integral spur 50 suitably cut out, struch up, or otherwise preferably integrally formed therefrom projecting first downwardly as at 51 and then flattened as at 54 to extend substantially parallel therewith and terminating in the end 56 adapted as shown in Fig. 3 to terminate when the clamping lever is in closed position in front of said wedge lip 26 whereby when said lever is pivoted to closed position said spur 50 may wedgedly clamp against lateral motion a fabric edge 60 between said spur end 56 and wedge lip 26. As shown in Fig. 3 it is thus apparent that on lateral pull on the strap end 24, the end clip 10 will securely and wedgedly retain the fabric edge 60 thereto.

To attach my clip member it is apparent that it is merely necessary to insert a fabric edge 60 over the surface of the diaphragm spring and the wedge lip 26 thereof and then clamp the pivot lever 19 from the open position shown in Fig. 2 to the closed position shown in Fig. 3. It is also apparent that when it is desired to unfasten the end clip, it is merely necessary to pivot the clamping lever 19 from the closed position shown in Fig. 3 to the open position shown in Fig. 2 when the fabric edge 60 may be readily withdrawn therefrom. It is apparent that in use, the positions shown in Figs. 2 and 3 will be reversed the upper surface 13 shown as the lower surface in the views will be on top thereby totally concealing the clamping lever 19 and the entire lower portion of the base member 12 leaving only exposed the surface 13 which may be ornamented if desired to provide an attractive end clip for straps. I employ the word "clamp" to cover a squeezing or binding action of the fabric edge between two members, one of which is movable to closed position, without any penetration of the fabric edge.

It is understood that my invention is not limited to the specific embodiments shown and that various deviations may be made therefrom without departing from the spirit and scope of the appended claims.

What I claim is:

1. A strap end comprising a clip member, comprising a base plate, a diaphragm spring member mounted on said base plate spaced from the lower edge thereof, having a central open portion, shoulders projecting upwardly on each side thereof, and an upwardly curved wedge lip bevelled towards an end of said open portion, a strap end attached to said base member in line with the opposite end of said open portion and a clamping lever having pivot ears integrally extending from each side thereof adapted to be inserted in said struts up shoulders adjacent each side of the open portion in the diaphragm spring, a depending lower end having a lower edge adapted to contact the upper edge of the base plate to extend the diaphragm spring upwards to effect a downward pressure on said clamping lever and a clamping upper end having an integral spur extending first downwardly and then substantially parallel therewith terminating in closed position in front of said wedge lip whereby when said lever is pivoted to closed position it may wedgedly clamp a fabric edge between said spur end and wedge lip.

2. A strap end, comprising a base plate, a clip member comprising a diaphragm spring member mounted on said base plate having a central open portion, shoulders projecting upwardly on each side thereof and an upwardly curved wedge lip bevelled upwards towards an end of said open portion, a curved base member having the outer edges thereof crimped over said diaphragm spring to bind it thereto with the lower edge thereof in spaced relationship therewith, a strap end attached to said base member in line with the opposite end of said open portion and a clamping lever having pivot ears integrally extending from each side thereof adapted to be inserted in said struts up shoulders adjacent each side of the open portion in the diaphragm spring, a depending lower end having a lower edge adapted to contact the upper edge of the base plate to extend the spring diaphragm upwards to effect a downward pressure on said clamping lever and a clamping upper end having an integral spur.
extending first downwardly and then substantially parallel therewith terminating when in closed position in front of said wedge lip whereby when said lever is pivoted to closed position it may wedgedly clamp a fabric edge between said spur and wedge lip.

3. A strap end clip, comprising a clip member, comprising a base plate, a diaphragm spring member mounted on said base plate spaced from the lower edge thereof having a central open portion, shoulders struck up on each side thereof, and an upwardly curved wedge lip bevelled towards an end of said open portion, means in line with the opposite end of said open portion to attach a strap end thereto and a clamping lever having pivot ears integrally extending from each side thereof adapted to be inserted in said struck up shoulders adjacent each side of the open portion in the diaphragm spring a depending lower end having a lower edge adapted to contact the upper edge of the base plate to extend the spring diaphragm upwards to effect a downward pressure on said clamping lever and a clamping upper end having an integral spur extending first downwardly and then substantially parallel therewith terminating when in closed position in front of said wedge lip whereby when said lever is pivoted to closed position it may wedgedly clamp a fabric edge between said spur end and wedge lip.

4. A strap end clip, comprising a base plate having means for attachment of a strap end thereto, a top plate mounted on said base plate having a wedge lip projecting upwards therefrom, and a clamping lever resiliently mounted on said top plate having a flattened downwardly projecting spur whereby when said lever is pivoted to closed position it may clamp a fabric edge between said flattened spur and lip.

5. A strap end clip, comprising a base plate having means for attachment of a strap end thereto, a diaphragm spring member mounted therein having a wedge lip projecting upwards therefrom and a clamping lever mounted on said diaphragm spring having a lower end adapted to contact the base plate to cause resilient upward pressure on said diaphragm spring and having a flattened downwardly projecting spur whereby when said lever is pivoted to closed position it may wedgedly clamp a fabric edge between said flattened spur and wedge lip.

In testimony whereof I affix my signature.

Sigmund Fischer.