A pencil with a push-button for displacing the lead has a flange encircling the button. The flange limits displacement of the button into the pencil body and limits the depth of engagement of a cap mountable selectively on the button or on the writing end of the pencil. The writing end is also provided with a step to limit the depth of engagement of the cap.
1. Field of Invention
This invention relates to writing instruments and, more particularly, to writing instruments of the type provided with push-buttons to control the projection of writing tips or points included by such instruments.

2. Prior Art
Writing instruments, such as pens and pencils, are known which are provided with push buttons which control the projection or withdrawal of writing points. These instruments do not normally include caps so that the writing points are unprotected and may therefore be broken or are exposed to cause soilage. Also, in compact and short designs, the writing instrument is usually rather difficult to hold and manipulate for purposes of writing.

SUMMARY OF INVENTION
It is an object of the invention to provide an improved writing instrument of the type including a push button.

It is another object of the invention to provide an improved instrument of the above-mentioned type in which a cap is employed to conceal and protect the writing point, the cap being selectively transferable to the push button to constitute an extension of the effective length of the writing instrument.

To achieve the above and other objects of the invention, there is provided a writing instrument including a body with a writing point such as a pen point or pencil lead and guide. The body supports a push button in telescopic relationship therewith, which push button may be engaged by a cap which may otherwise engage the front end of the body to conceal and protect the writing point. The cap, when mounted on the push button, constitutes an extension of the same and/or of the body. It is furthermore possible to operate the push button by depressing the same through the intermediary of the body.

In further accordance with the invention, the body can be provided with a stop against which the cap rests when engaging the front end of the body. The push button, on the other hand, is provided with an encircling flange or the like against which the cap rests when engaging the push button.

Other constructional features of the invention will be found in the detailed description which follows, taken in conjunction with the accompanying drawing.

BRIEF DESCRIPTION OF DRAWING
In the drawing:
FIG. 1 is a side view of a pencil with its cap covering the writing point thereof;
FIG. 2 is a side view of the pencil of FIG. 1 with the cap removed; and
FIG. 3 is a side view of said pencil with the cap transferred to the push-button of the pencil.

DETAILED DESCRIPTION
An object of the present invention is to avoid various drawbacks of existing pencils and the like having projectible points. Conventional push-button type pencils do not generally have caps and therefore, when the lead is left in projected position by mistake, it is possible to soil the inside of a pocket in which the pencil is placed. At the same time, if such a pencil is designed to be compact and short, it is rather difficult to hold if for purposes of writing.

In accordance with the present invention, the cap is designed to serve two purposes. When the cap is affixed over the tip of the pencil, it works as a protector for its lead to conceal the same. When the cap is off and affixed to the rear of the pencil, it works as an extension of the body of the pencil. Therefore it is possible to design the main body of the pencil to be much shorter than in conventional type of pencil.

In order to make the above possible, the push-button which is situated at the end of the pencil has a flange and the cap which fits on the push-button stops when it comes into contact with this flange. By pushing the end of the cap, when the cap is on the push-button, the push-button is pushed down in turn and this makes it possible to project the lead outwardly.

In the accompanying drawing, element 1 is the body of the pencil. The body is provided with a step 2. A cone-shaped tip 3 is screwed into the elongated cylindrical body. At the rear end of the body, there is a cylindrical push-button 4 in telescopic relationship with the rear end R of the body (the button being shown in its normal position of rest). The action and function of this push-button to displace the associated writing point is well known and, therefore, need not be explained in detail. This invention makes it possible to design conventional push-type pencils with a much shorter length.

By fitting a hollow cap 5 on the front end of the body when it is not in use, it is possible to reduce the total length of a pencil having a cap from that of a conventional pencil. Alternatively, this cap 5 can be mounted on the free end E of the push-button 4 which is engaged frictionally to the extent limited by contact or abutment with the stop or flange 6.

As a result, when the pencil is in use and the cap is on the push-button, the total length is as great as with a conventional pencil so that one can write with this improved propelling pencil as easily as with a conventional one. Furthermore, pushing the end of the cap gives the same effect as pushing the push-button 4.

When not in use, the cap is removed from the push-button and it is then mounted on the front part of the body to cover the cone-shaped tip 3 and thus the writing end of the pencil. The use of the cap moreover makes the total length of the pencil much shorter than with a conventional pencil. The propelling pencil of the invention thus can fit inside of a very shallow pocket or the like.

Step 2 on the body 1 can be removed or the flange 6 replaced on the push-button 4 by one or more studs. If a step is used, it preferably has the same outer diameter as flange 2. Also, the same idea can also be used for ball point pens or fountain pens. A clip C can be provided on the cover.

What is claimed is:
1. A writing instrument comprising a body having an axis and front and rear ends, writing means on the front end of said body and displaceable axially relative thereto, push-button means on the rear end of said
body and displaceable axially relative thereto to control displacement of said writing means, stop means on said push-button means to limit displacement of the same relative to said body, and cap means selectively mountable on the front end of said body to conceal said writing means or on said push-button means to constitute an extension of the same and of said body, said stop means constituting an abutment against which said cap means axially abuts when the cap means is mounted on the push-button means, said body comprising an elongated cylinder and the push-button means including a push-button telescopically related to said body and displaceable partially into said body, said push-button having a free end remote from said body and a normal position of rest relative to said body, said stop means comprising a flange-like member at least partly encircling said push-button and adapted to abut the rear end of said body when the push-button is displaced into the latter, said flange-like member being positioned on said push-button in spaced relation to said free end and being spaced from the rear end of said body when the push-button is in said position of rest, said cap means being a hollow member adapted for frictionally engaging the free end of the push-button.

2. An instrument as claimed in claim 1 wherein said body includes a step means against which said cap means abuts when the cap means is mounted on the front end of said body.

3. An instrument as claimed in claim 2 wherein said writing means includes a pencil lead.

4. An instrument as claimed in claim 3 wherein said step means and flange-like member have substantially equal outer diameters which exceed the internal diameter of said hollow member.