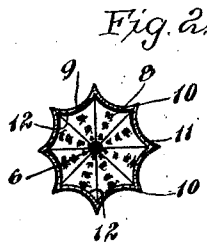
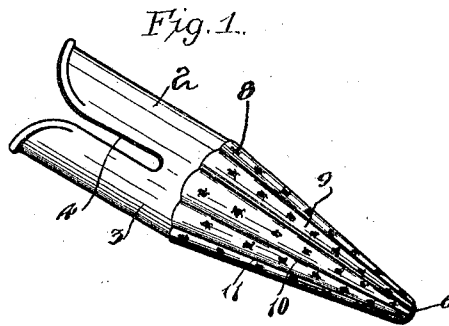


T. GOODAIR.
COMBINATION PENCIL PROTECTOR AND SHARPENER.
APPLICATION FILED AUG. 20, 1908.

947,812.

Patented Feb. 1. 1910.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS GOODAIR, OF WINNIPEG, MANITOBA, CANADA.

COMBINATION PENCIL PROTECTOR AND SHARPENER.

947,812.

Specification of Letters Patent.

Patented Feb. 1, 1910.

Application filed August 20, 1908. Serial No. 449,515.

To all whom it may concern:

Be it known that I, THOMAS GOODAIR, of the city of Winnipeg, in the Province of Manitoba, Canada, have invented certain
5 new and useful Improvements in Combination Pencil Protectors and Sharpeners, of which the following is the specification.

My invention relates to combination pencil protectors and sharpeners and the object of
10 the invention is to provide a simple and inexpensive device which can be readily attached to any pencil when it is being carried, thus serving the purpose of protecting the pencil point from breakage and which can
15 be utilized for sharpening the pencil if it be so desired.

It consists essentially in a short tubular member, the one end of which is open and the other end of which is tapered conically
20 to a point, there being openings formed in the conical end by piercing the material inwardly; the parts being arranged and constructed as hereinafter more particularly described.

25 Figure 1 is an enlarged detailed perspective view of an embodiment of the combination pencil protector and sharpener. Fig. 2 is a vertical cross sectional view through the tapering end of the device.

30 In the drawings like characters of reference indicate corresponding parts in each figure.

2 represents the combination protector and sharpener which is formed from a tubular
35 member 3, designed to pass over the end of the pencil. In order that the device may hold firmly to the pencil it is provided with the usual slits 4, formed in the tubular portion and extending longitudinal of it. The
40 one end of the tube is tapered conically at 5, there being a slight opening 6 left at the apex of the cone through which the lead of the pencil can pass centrally.

8 are openings pierced in the conical end, such openings appearing at intervals over
45 the complete surface. The edges of the pierced openings are turned inwardly and form a series of cutting points which serve to sharpen the pencil.

As shown, the tapered end 5 is provided
50 with a series of adjoining longitudinal channels 9 having common bounding edges 10 and 11, as best shown in Fig. 2. The openings 8 are formed within the depressed portions of the tapering end. It will be seen
55 that the tapering end produces a gripping surface. It will also be noticed that this method of construction leaves a clearance at 12 for the material removed from the pencil between the adjoining longitudinal rows of
60 openings.

I wish it to be understood that the openings may be of any shape which it may be found advantageous to have in order to give the
65 best results for cutting purposes, those shown in the drawings being circular. In using the device it is simply placed on the pencil and turned, the inwardly directed edges of the openings shaving or scraping the material of the pencil, thereby bringing it to a
70 conical point.

What I claim as my invention is:

A combination pencil protector and sharpener comprising a tubular member adapted to fit over the end of a pencil, and a tapering
75 end piece to the tubular member having a series of longitudinal depressed channels and openings formed in the depressed portion of the channels, said openings having inwardly directing edge portions.

Signed at Winnipeg, in the Province of Manitoba, this 17 day of July, 1908.

THOMAS GOODAIR

In the presence of—

M. S. RIDDELL,
GERALD S. ROXBURGH.