

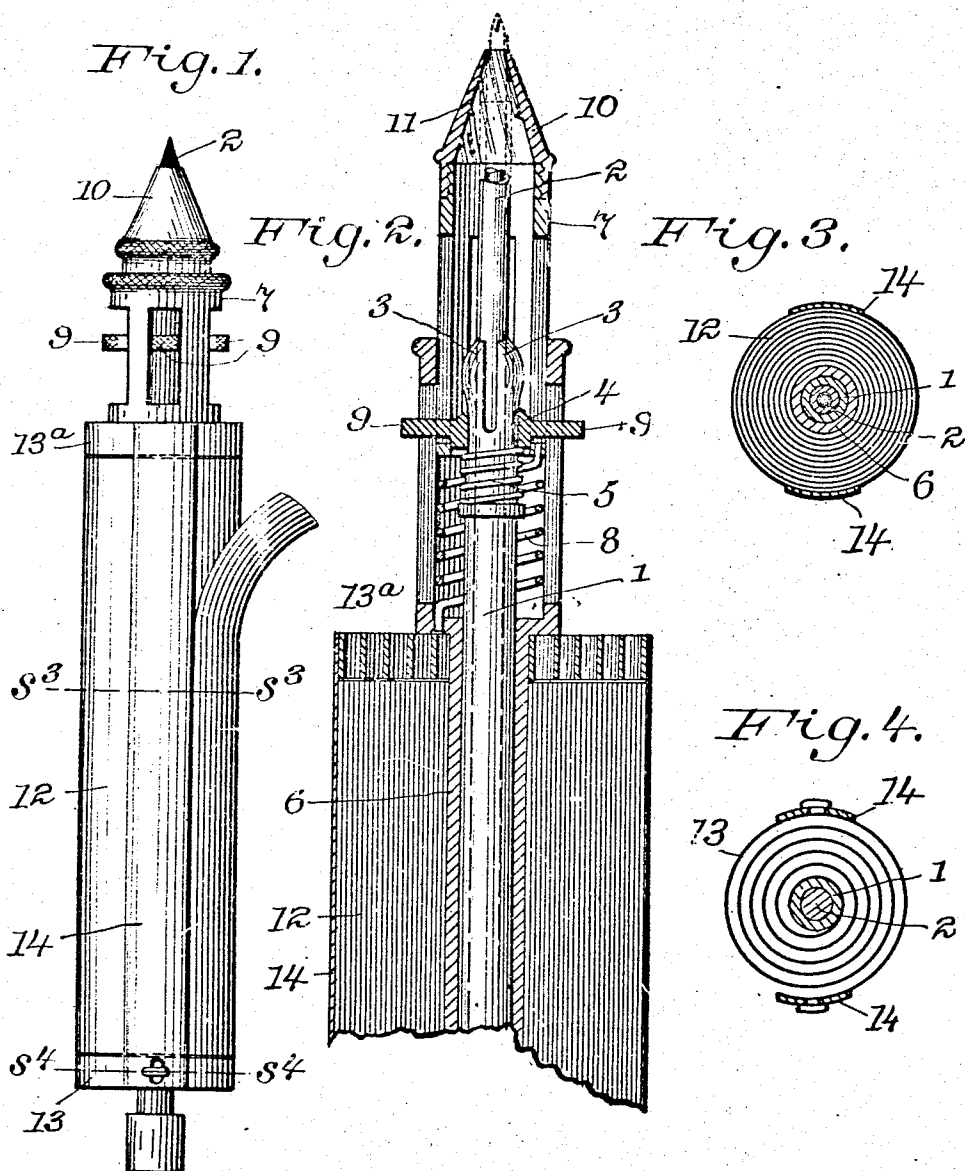
No. 764,312.

PATENTED JULY 5, 1904.

H. SPENGLER.
PENCIL.

APPLICATION FILED JULY 21, 1899.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY SPENGLER, OF NEW YORK, N. Y.

PENCIL.

SPECIFICATION forming part of Letters Patent No. 764,312, dated July 5, 1904.

Application filed July 21, 1903. Serial No. 166,478. (No model.)

To all whom it may concern:

Be it known that I, HENRY SPENGLER, residing at New York, in the county of New York and State of New York, have invented a new and useful Improvement in Pencils, of which the following is a specification.

My invention relates to lead-pencils, and has for its object to combine a roll of paper with a pencil in such manner that as the paper is drawn from the roll the pencil-point will be acted upon by the cutter and sharpened.

One embodiment of the invention is illustrated in the accompanying sheet of drawings, throughout the several views of which like numerals indicate corresponding parts.

In the drawings, Figure 1 is a view in elevation of a pencil constructed in accordance with my invention and showing a strip of the paper partly cut from the roll thereon. Fig. 2 is an enlarged sectional view of the point end thereof. Fig. 3 is a cross-sectional view taken on the lines S³ S³ of Fig. 1, and Fig. 4 is a similar view taken on the lines S⁴ S⁴ of Fig. 1.

Referring now to the drawings, 1 represents a tube, which extends throughout the length of the pencil and is designed to receive the lead 2. I preferably employ a very small lead having a light covering of wood; but it will be understood that lead of larger diameter without the wood covering may be used, if desired. The pencil or lead may be secured in the tube in any suitable manner—as, for example, by means of the jaws 3 3, which are actuated by the collar 4 and spring 5 to normally clamp the lead, as shown in Fig. 2.

A tube 6, inclosing the lead-tube, is enlarged at the end adjacent to the pencil-point to receive a tubular section 7, which through the action of the spring 8 tends to telescope into the open end thereof. The tubes 6 and 7 are connected to rotate together by means of lugs 9 9, &c., of the collar 4, which project through registering slots thereof. Threaded onto the open end of the tube 7 there is a conical cap 10, provided interiorly with suitable teeth 11, forming a cutter, by which the lead projecting through the same is pointed.

A roll of paper 12 is mounted fast upon

the tube 6 between terminal springs 13 13^a and the longitudinally-disposed cutter-bars 14 14. As shown in Figs. 1 and 4, the spring 13 is detachably secured to the cutter-bars 14 by buttons passing through slots thereof. On removing this spring the roll of paper when about exhausted may be removed and replaced by a new one. The cutter-bars become adjusted to the varying diameter of the roll by the action of the springs in contracting as the paper is drawn therefrom.

From the foregoing it will be seen that as the paper is drawn from the roll the tubes 6 and 7 will be rotated, and this motion imparted to the cutter 11 will cause the same to point the projecting end of the lead. This action continues until the length of lead projecting beyond the clamp of the lead-tube is sufficiently reduced to permit the tube-section 7 to telescope to its full extent within the tube 6, as shown in Fig. 1. By adjusting the collar 4 to release the clamp-jaws the lead will feed out by gravity as the tube 7 is drawn out against the action of the spring 8, and on releasing the collar to allow the clamp-jaws to again grip the lead the tube-section will be held as adjusted, as shown in Fig. 2. When it is desired to point the lead without drawing paper from the roll, the cutter-cap may be given several turns, first in one direction, then in the other. When the roll becomes exhausted, another may be placed in position by removing the spring 13 and slipping the roll on the tube 6, which is roughened or otherwise formed to engage and rotate with the same.

Having therefore described my invention, I claim—

1. The combination with a pencil, of a roll of paper mounted thereon, a cutter for pointing the pencil and means for transmitting motion from the roll to the cutter.

2. The combination with a pencil, of a roll of paper mounted thereon, a cutter for the paper and means for rendering the cutter self-adjusting to the varying diameter of said roll.

3. The combination with a pencil, of a roll of paper mounted thereon, a cutter for point-

ing the pencil, means for maintaining the cutter in operative relation to the pencil-point and means for transmitting motion from the roll to the cutter.

- 5 4. The combination with a pencil, a tube and clamp therefor, of a roll of paper rotatably mounted on said tube, a spring-fed cutter and means for simultaneously rotating the roll and

cutter relatively to the pencil as the paper is drawn from said roll. 1c

In testimony whereof I affix my signature in the presence of two witnesses.

HENRY SPENGLER.

Witnesses:

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