

No. 885,190.

PATENTED APR. 21, 1908.

C. A. SMITH.
PENCIL.

APPLICATION FILED OCT. 26, 1907.

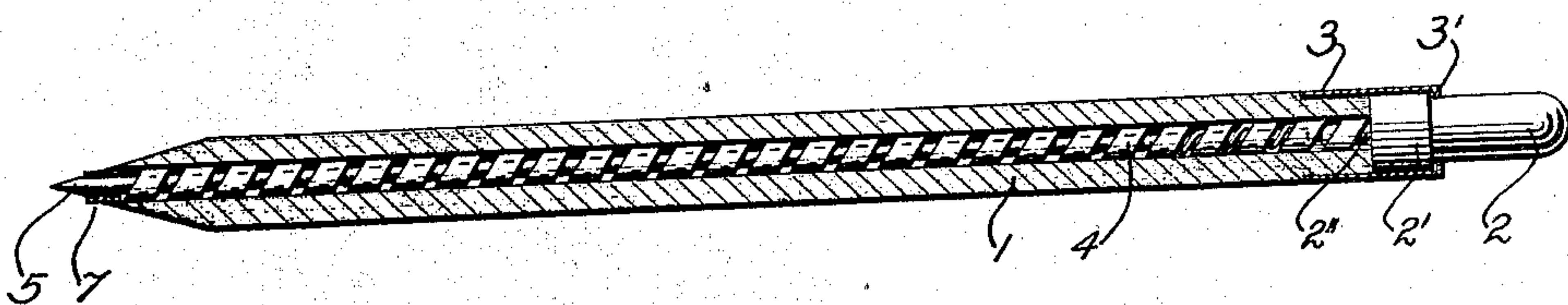


FIG. 1.

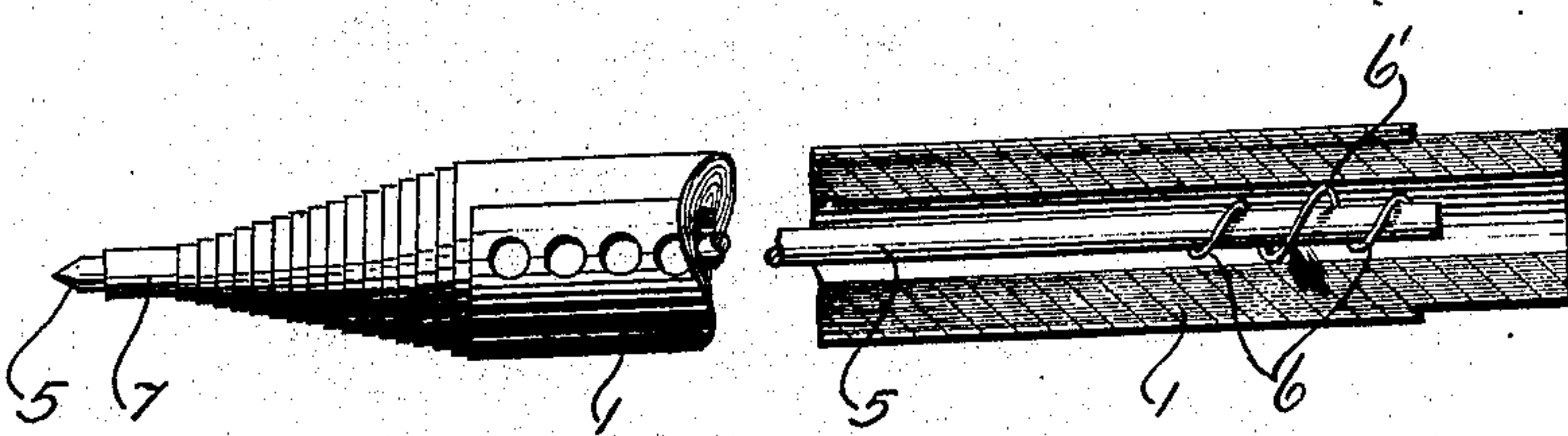


FIG. 2.

WITNESSES:

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CHARLES A. SMITH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO BLAISDELL PAPER PENCIL COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

PENCIL.

No. 885,190.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed October 26, 1907. Serial No. 399,247.

To all whom it may concern:

Be it known that I, CHARLES A. SMITH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Pencils, of which the following is a specification.

This invention relates to pencils having means for propelling the lead or crayon, and its leading object is to provide a simple, inexpensive and efficient construction suitable for use in a body formed by winding sheets of fibrous material.

To this end the invention comprises in its preferred form a hollow cylindrical body formed by winding a sheet of fibrous material, a top in alinement with the body to which it is coupled in revoluble relation, a long hollow helix or coiled metal ribbon fixed to the top and revoluble within the body, and a short helix which is fixed on the lead or crayon, engaged by the long helix and expanded to frictionally engage the body.

In the accompanying drawings, Figure 1 represents a longitudinal sectional view of a pencil embodying my improvements, and Fig. 2 is a broken sectional elevation representing the body and the lead having the short helix or coiled wire secured to the top thereof.

The body 1 is a hollow cylinder formed by spirally winding paper or like fibrous material, in a well known manner. The top or finger piece 2 has the enlarged cylindrical part 2' bearing against the body and the reduced part 2'' disposed within the opening therethrough. A cylindrical coupling or band 3 is fixed to the body and provided with a flange 3' which engages the enlarged part 2' of the top. A hollow helix 4, suitably formed by properly winding a metal ribbon, extends through substantially the length of the interior of the pencil, has an end thereto fixed to the reduced part 2'' of the revoluble top, and is of such diameter that it revolves freely within the body. The lead or crayon 5 has fixed to the top thereof a short helix 6 having a part 6' thereof expanded so as to engage the interior surface of the body. The lead is adapted to move freely within the long helix, and the coil of the short helix engages the body and the coils of the long helix so that when the top is revolved the lead is propelled longitudinally,

in either direction. A short cylindrical guard or nipple 7, suitably of metal, is set in the point of the body.

The character of the engagement between the coiled wire or short helix and the body avoids the necessity for using a groove in the latter having therein a follower fixed to the lead or crayon, which construction would be inconvenient, unnecessarily expensive and objectionable, particularly in a pencil having a body formed by winding fibrous material. It is to be understood that the term lead is used generically in the claims to indicate any suitable marking substance, whether plumbago, graphite, crayon or other material.

Having thus described my invention, I claim:—

1. A pencil having a hollow body, a hollow helix revoluble within said body, a marking rod within said hollow helix, and a device fixed on said rod and extending outwardly beyond said helix so as to frictionally engage the interior surface of said body and be engaged by the coils of said helix.

2. A pencil having a hollow body, a hollow helix revoluble within said body, a marking rod within said hollow helix, and a coil fixed to said rod so as to be engaged by said helix, said coil having an expanded part which engages the interior surface of said body.

3. A pencil having a hollow body formed by winding sheet material, a hollow helix revoluble within said body, a top fixed to said helix and coupled in revoluble relation to said body, a lead rod movable within said helix, and a coil fixed to said rod and extending outwardly beyond said helix, said coil engaging the coils of said helix and the interior of said body.

4. A pencil having a hollow body formed by winding sheet material, a hollow cylindrical guard set in the point of said body, a hollow helix within said body, a lead rod within said helix, and a resilient device fixed on said rod, said device projecting through said helix and frictionally engaging said body, and means whereby said device and helix are caused to propel said rod.

5. A pencil having a hollow body formed by winding sheet material, a hollow helix revoluble within said body, a finger piece having an enlarged part fixed to said helix, a band fixed to said body and having a flange

engaging the enlarged part of said finger
piece, a marking rod movable within said
helix, and a coil fixed to said rod, said coil
positively engaging the coils of said helix and
5 frictionally engaging the interior of said
body.

In testimony whereof I have hereunto set

my name, this 24th day of October, 1907, in
the presence of the subscribing witnesses.

CHARLES A. SMITH.

Witnesses:

ROBERT JAMES EARLEY,
Jos. G. DENNY, Jr.