No. 890,274. PATENTED JUNE 9, 1908.

A. HALL.

PEN.

APPLICATION FILED MAY 8, 1905.

Fig. 1.

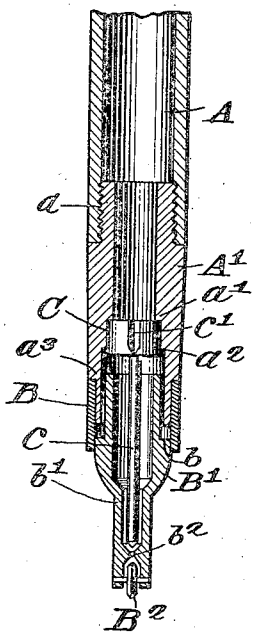


Fig. 3.

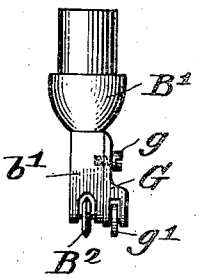


Fig. 4.

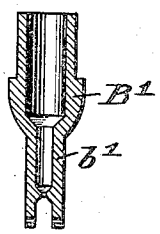
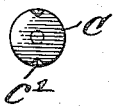


Fig. 2.



Witnesses:

C. W. Johnston

Wells Goodhue

Inventor:

Alfred Hall.

By Thomas Kay Atty

UNITED STATES PATENT OFFICE.

ALFRED HALL, OF CHICAGO, ILLINOIS, ASSIGNOR TO AMERICAN SALES COMPANY, OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

PEN.

No. 890,274. Specification of Letters Patent. Patented June 9, 1908.

Application filed May 8, 1905. Serial No. 259,339.

To all whom it may concern:

Be it known that I, ALFRED HALL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pens, of which the following, taken in connection with the drawing, is a specification.

My invention has for its object the production of improvements in fountain pens, and more particularly as applied to ruling and drawing pens.

By the construction of my pen an even feed of ink is insured for the ruling wheel or pen and the device may be quickly and easily adjusted to produce either a heavy or light line as desired.

Many other novel features will be more fully pointed out in the following description and claims.

I have illustrated my invention in what I now consider the preferred form thereof in the accompanying drawings, in which

Figure 1 is a vertical cross section taken through the center of one form of my invention, showing its arrangement when used in connection with a ruling wheel; Fig. 2 is a top plan view of the valve head; Fig. 3 is a detail in side elevation of the tip and ruling wheel, having an idler wheel attached thereto; Fig. 4 is a cross section of Fig. 3 with the idler wheel detached.

Like reference letters indicate like or corresponding parts in the different views.

In carrying out my invention A, Fig. 1, represents the ink barrel or body portion of a fountain pen having screw threads a upon the inner periphery of one end thereof as is usual in the ordinary fountain pen. A hollow cylindrical casing A′ is screwed into the ink barrel A, and is provided with inner circumferential shoulders a', a^2, and an outer circumferential shoulder a^3. Seated against the outer circumferential shoulder a^3 is a collar B which is frictionally held upon the casing A′.

A hollow cylindrical tip B′ having an outer circumferential shoulder b, fits inside of the casing A′ and collar B and is frictionally held therein. The elongated portion b' of the tip B′ is bifurcated at the lower end thereof and has journaled in the forks of said bifurcation the drawing wheel B^2. A valve seat b^2 is provided at the lower end of the elongated portion b' of the tip. A valve stem c projects in side of the tip B′ and is adapted to b seated in the valve seat b^2. A head C is supported upon the valve stem c and has upon the outer periphery thereof one or more grooves c' through which the ink is fed into the cylinder of the tip B′. The flow of ink to the ruling wheel B^2 is regulated by moving the tip up or down inside of the casing A′, which, by closing the valve partly or entirely will give the desired flow of ink or shut the flow off entirely.

In Figs. 3 and 4 I have shown a side view and cross section of the tip B′, illustrated in Fig. 1. The drawing wheel B^2 used in these pens may be of various kinds. In Fig. 3 I have illustrated one form of construction found desirable. The drawing wheel B^2 may have a smooth periphery as shown in Fig. 3, or as is obvious might be provided with small projections thereon representing the dots and dashes used by draftsmen in sectional drawing. A small section G, bifurcated at one end thereof is secured by means of a set screw g or in any other desired manner to the elongated portion b' of the tip B′. Journaled in the bifurcated end of this section is an idler wheel g' which in operation acts as a guide and support for the drawing wheel B^2.

The advantages of my invention will be apparent to those skilled in the art. My improvements are very simple in construction, comprise few parts, can be easily and cheaply manufactured and placed in position and are effectual in all respects in the performance of their functions. Slight changes might be made without departing from the spirit thereof or limiting the scope and hence I do not wish to limit myself to the precise details of the construction here shown.

I claim:

1. In a pen of the class described, an ink barrel, a tubular tip connected with said ink barrel, a collar surrounding said barrel and tip and holding them in frictional contact, a ruling or drawing wheel journaled in said tip and a valve for regulating the supply of ink to said wheel, substantially as described.

2. A pen comprising an ink barrel, a tubular casing secured to said ink barrel, said casing having outside and inside circumferential shoulders, a tip having an outer circumferential shoulder, a collar holding the tip and casing in frictional contact, a drawing wheel journaled in the end of said tip, and a valve for regulating the supply of ink to the drawing wheel, substantially as described.

3. A pen comprising an ink barrel, a tubular tip, a collar surrounding said tip and body portion and adapted to hold the same in frictional contact, said tip having an elongated portion bifurcated at the end thereof, a wheel journaled in the forks of said bifurcation, a valve seat in said elongated portion and a valve stem supported inside of the body portion of said pen, substantially as described.

4. A pen comprising an ink barrel, a tubular tip removably arranged in said barrel, means for holding said tip and barrel in frictional contact, said tip having an elongated portion bifurcated at the end thereof, a wheel journaled in the forks of said bifurcation, a valve seat in said elongated portion, a valve stem and valve head, the valve head having vertical grooves in the outer periphery thereof, substantially as described.

In testimony whereof I have hereunto signed the foregoing specification in the presence of two subscribing witnesses.

ALFRED HALL.

Witnesses:
C. S. CORNING,
FLORENCE KING.