

G. W. Woolley,
Fountain Pen.

No 30851.

Patented Dec 4, 1860.

Fig. 1.

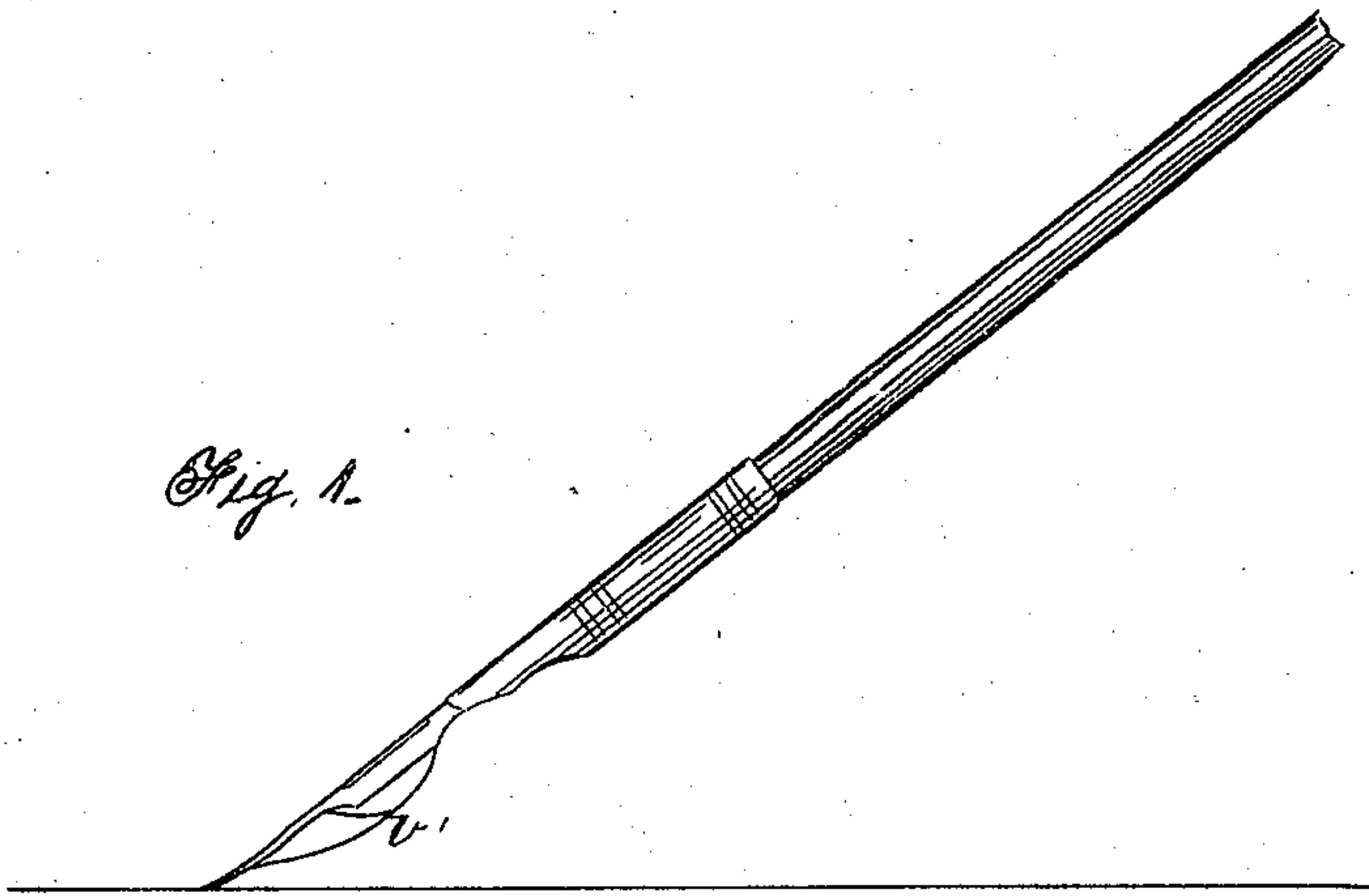


Fig. 2

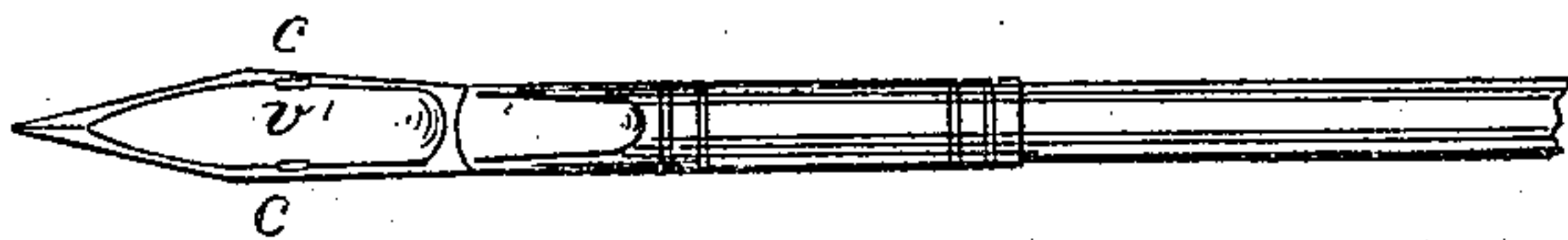


Fig. 3.

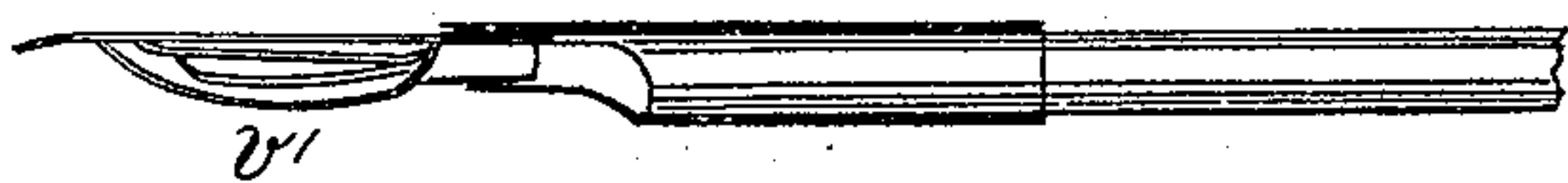


Fig. 4

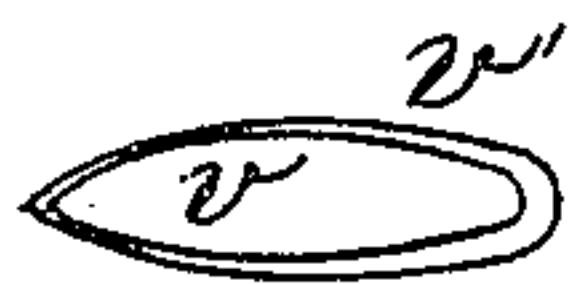
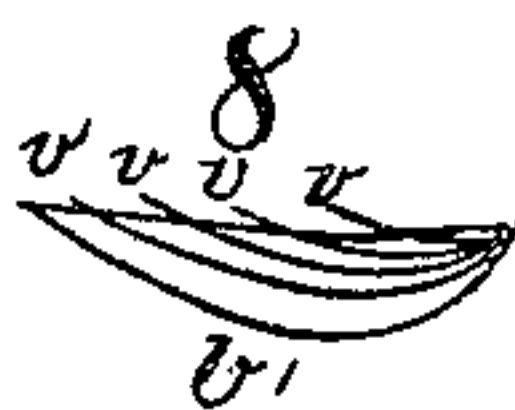
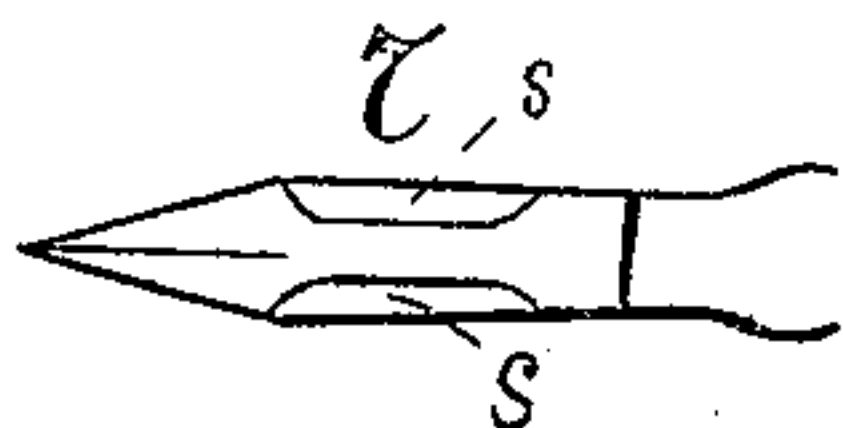


Fig 5

Fig. 6



Witnesses:

Wm C. Lorr

Hector Orr.

G. W. Woolley

UNITED STATES PATENT OFFICE.

G. W. WOOLLEY, OF PHILADELPHIA, PENNSYLVANIA.

FOUNTAIN-PEN.

Specification of Letters Patent No. 30,851, dated December 4, 1860.

To all whom it may concern:

Be it known that I, G. W. WOOLLEY, of Philadelphia, in the State of Pennsylvania, formerly of San Francisco, California, have
5 invented a new and Improved Fountain or Reservoir Pen; and I do hereby declare that the following is a full and accurate description thereof, reference being had to the accompanying drawings and to the letters of
10 reference marked thereon.

The nature of my invention consists in an ink holding and controlling reservoir for writing pens, said reservoir being capable of holding a comparatively large quantity of
15 ink and of being quickly and conveniently filled and also being a security against blotting. It likewise sheds ink freely and regularly in writing, is capable of being easily kept clean and is not liable to get out of
20 repair. It is applied to the concave surface of the pen between the point and the holder and may be made to augment the capacity of the pen for holding ink from twenty to one hundred times or more, and thus fur-
25 nish a supply at one dip, sufficient for writing from five to twenty pages. Such a pen, or attachment to a pen is by many penmen considered a desideratum.

Its construction and principle will be
30 easily understood by reference to the drawings, making a part of this specification.

Figure 1, represents the pen and fountain in position for writing, the latter supposed to be held in the pen by its sides being
35 turned inward and clasping it, as shown in Fig. 1, and in Fig. 7. In the latter figure an outline of the pen alone is exhibited. One method of attaching the fountain to ready made pens is by braces or cleats soldered on to the sides of the pen as shown in
40 Fig. 2, (c). As will be seen they are placed at nearly equal distances from the ends of the reservoir, and laterally so as to catch its edges and compress them sufficiently to
45 hold it securely though not so tight as to prevent its removal when necessary by moderate pressure. The cleats may be an eighth of an inch long or less, made of gold plate or wire.

50 Fig. 3 is a longitudinal section of the reservoir exhibiting the position of the duplicate valves when in position in the pen, and no pressure is made on the point.

Fig. 4, displays the superior valve *v* and
55 its relation to the sides of the reservoir, (*v'*).

Fig. 5, is a transverse section of the reservoir, valves (*v*) and pen, (*p*) showing, their

relation to each other, and the way in which the reservoir (*v'*) fits under the braces or cleats, when adopted.

Fig. 6, shows the position of the duplicate valves when not pressing against the pen, in a longitudinal section of the reservoir (*v'*). 60

Fig. 7 is an outline of the pen improved and adapted to the fountain; its sides (*s*), 65 being turned inward, holding it to its place and at the same time allowing of its being slid out and in with facility.

Figs. 8 and 9 exhibit different views of the quadruple valves when this number is used. 70 In very large reservoirs even a greater number may be advantageous, while small ones may not require more than one or two.

The reservoir is inserted in the pen and has at its upper end, a space left between it 75 and the back of the pen of about the 20th part of an inch for the admission of air and ink when it is desired to fill all the valves.

Although the best material for making the reservoir may be gold, platinum, copper, or 80 silver, or such an alloy of two or more of these as may be most elastic, yet other articles, as gutta percha, horn, or steel may likewise be adapted to the purpose. The valves being thin and elastic should each spring 85 lightly against the pen, having a space between their free ends so as to sustain the ink and promote its regular discharge in writing.

It will be found by experiment that the 90 fountain fills in proportion to its immersion in the ink, and may be frequently used without dipping deeper than the shoulders of the pen, which will admit sufficient fluid to write a number of pages. When entirely full the 95 fountain will hold enough thin fluid to write from fifteen to thirty pages, according to its size and the size of the writing.

Although the pen with this fountain may be placed in the horizontal position without 100 leaking, yet it is not designed to carry ink in the pocket and should be cleaned as well as any other pen when done writing.

What I claim as my invention and desire 105 to secure by Letters Patent, is—

An ink holding and controlling reservoir *v'*, for writing pens constructed and applied within the concave of the pen, substantially in the manner and for the purposes set forth.

G. W. WOOLLEY.

Witnesses:

THOS. A. FARNHAM,
EPHM. GARRISON.