M. B. SPAFFORD.

Car-Track Clearer.

No. 24,829. Patented July 19. 1859.

Fig. 1.

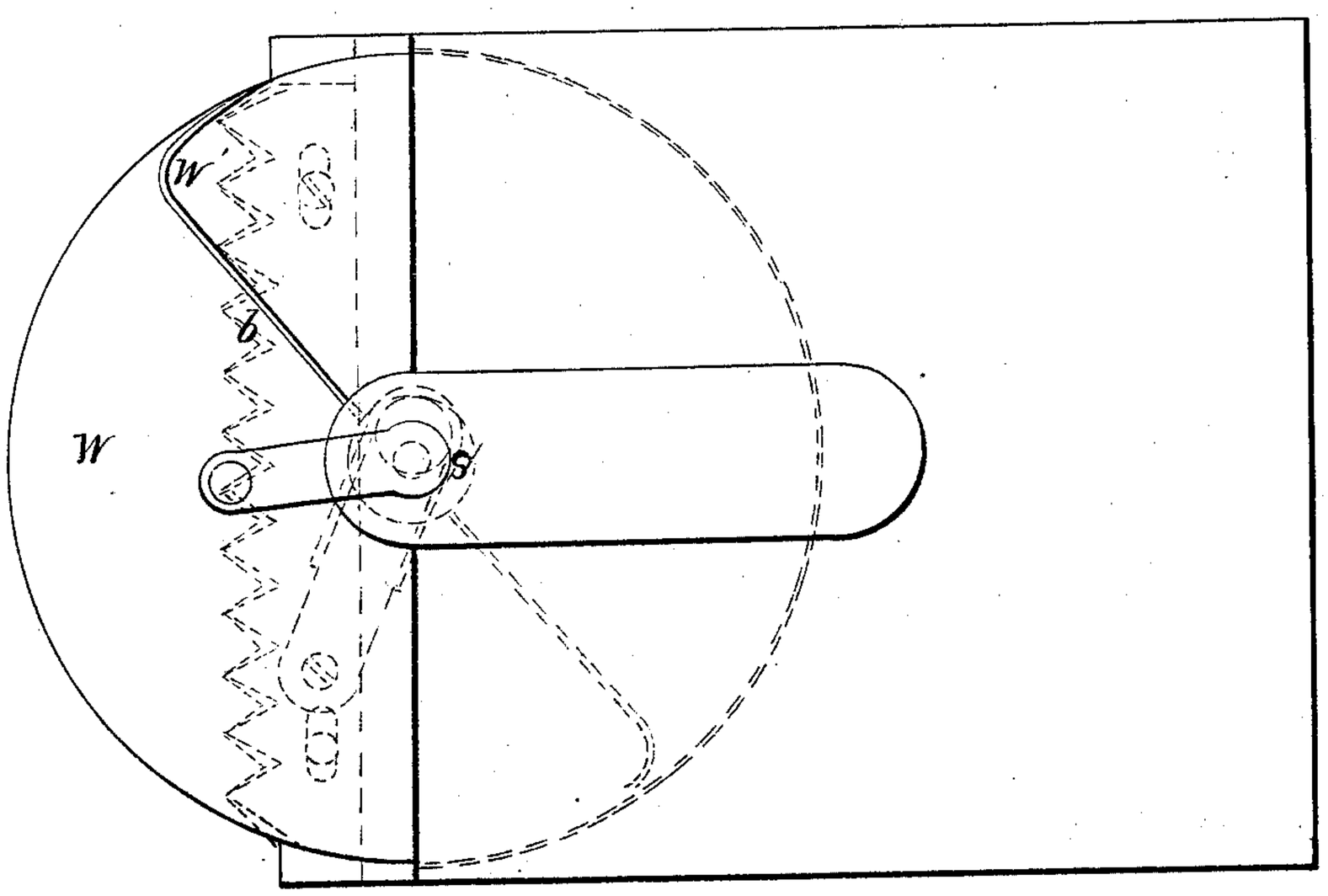
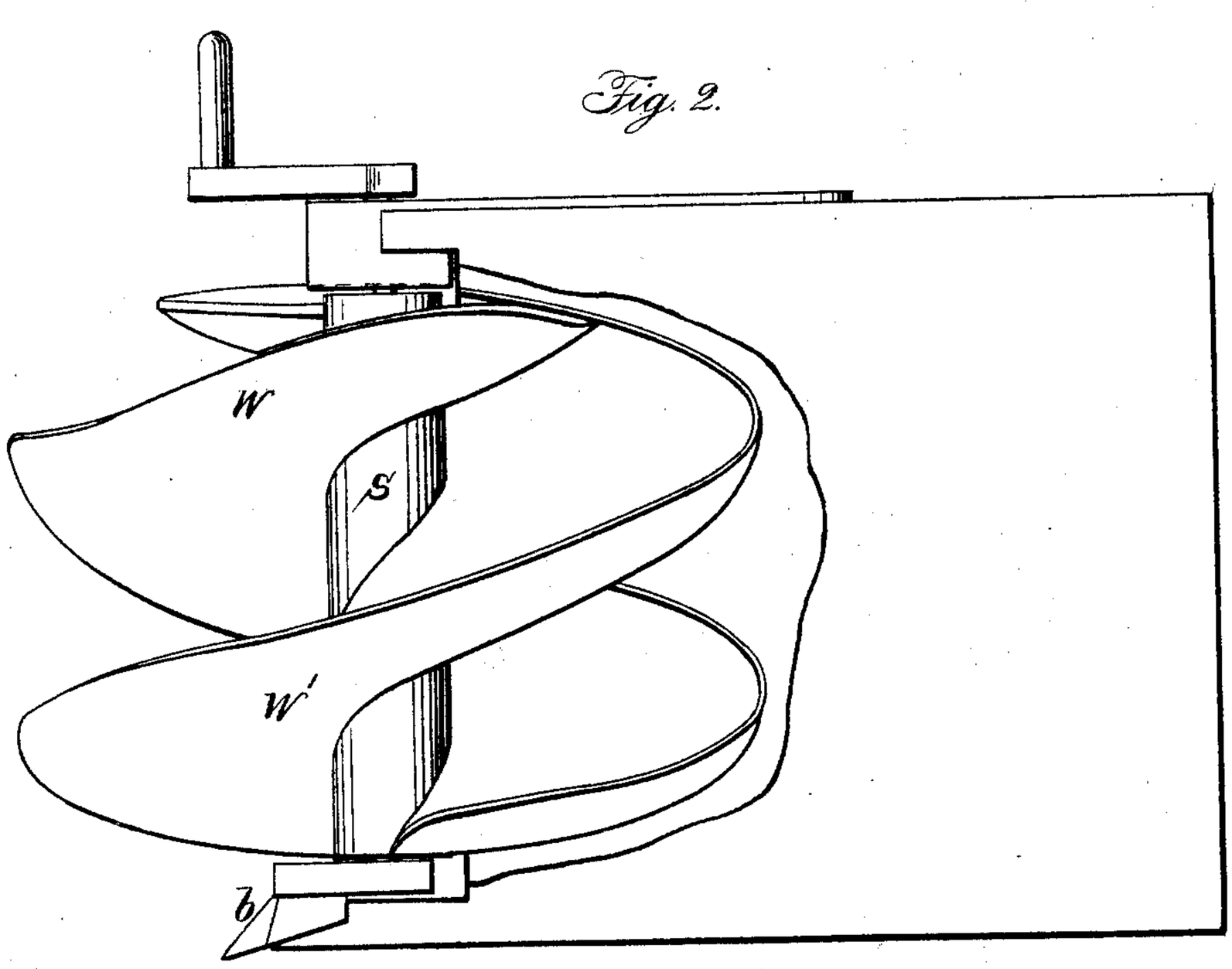


Fig. 2.



UNITED STATES PATENT OFFICE.

M. B. SPAFFORD, OF WARSAW, NEW YORK.

IMPROVEMENT IN SNOW-PLOWS.

Specification forming part of Letters Patent No. **24,829**, dated July 19, 1859.

To all whom it may concern:

Be it known that I, M. B. SPAFFORD, of Warsaw, in the county of Wyoming and State of New York, have invented a new and useful Improvement in Snow-Excavators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, forming part of this specification, in which—

Figure 1 is a top view of the excavator, and Fig. 2 is an elevation of the same.

Similar characters of reference in the several figures denote the same part.

The object of my invention is the removal of snow from railroads, its action being to cut into the mass upon the track, and, elevating it above the surface of the snow, discharge it on the roadside. The excavator consists of a vertical shaft placed in front of the locomotive and driven thereby, having spiral wings, which serve to cut and elevate the snow, as will be described, a horizontal reciprocating cutter close to the rails acting in connection with the elevator and excavator, for purposes hereinafter to be set forth.

In the drawings, S is the excavator-shaft, supported in a suitable frame in front of the locomotive and driven thereby. Upon this shaft are spiral wings W W′, extending its entire length, the lower edges of these wings being nearly horizontal and passing above the reciprocating notched bar *b*. The wings cut into the snow, which by the rotation of the shaft is carried upward and discharged from off the wings by the side of the road. The bar *b*, which is reciprocated by reason of an eccentric connection with shaft S, runs close to the rails and removes adhering ice.

The excavating and elevating apparatus extends over a single track, though, if it be necessary, more than one shaft may be used and a wider excavation be made.

The advantage of this apparatus lies in the fact that the snow has not to be pressed laterally in removing it from the track, which is an operation extremely difficult in deep drifts.

Disclaiming horizontal shafts with spiral wings for the removal of snow from railroads, as such have been used before, I claim—

The vertical rotary shaft S with its spiral wings W W′, for the removal of snow from the railroad-track.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

M. B. SPAFFORD.

Witnesses:

ALONZO CHOATE,

S. S. ELDRIDGE.