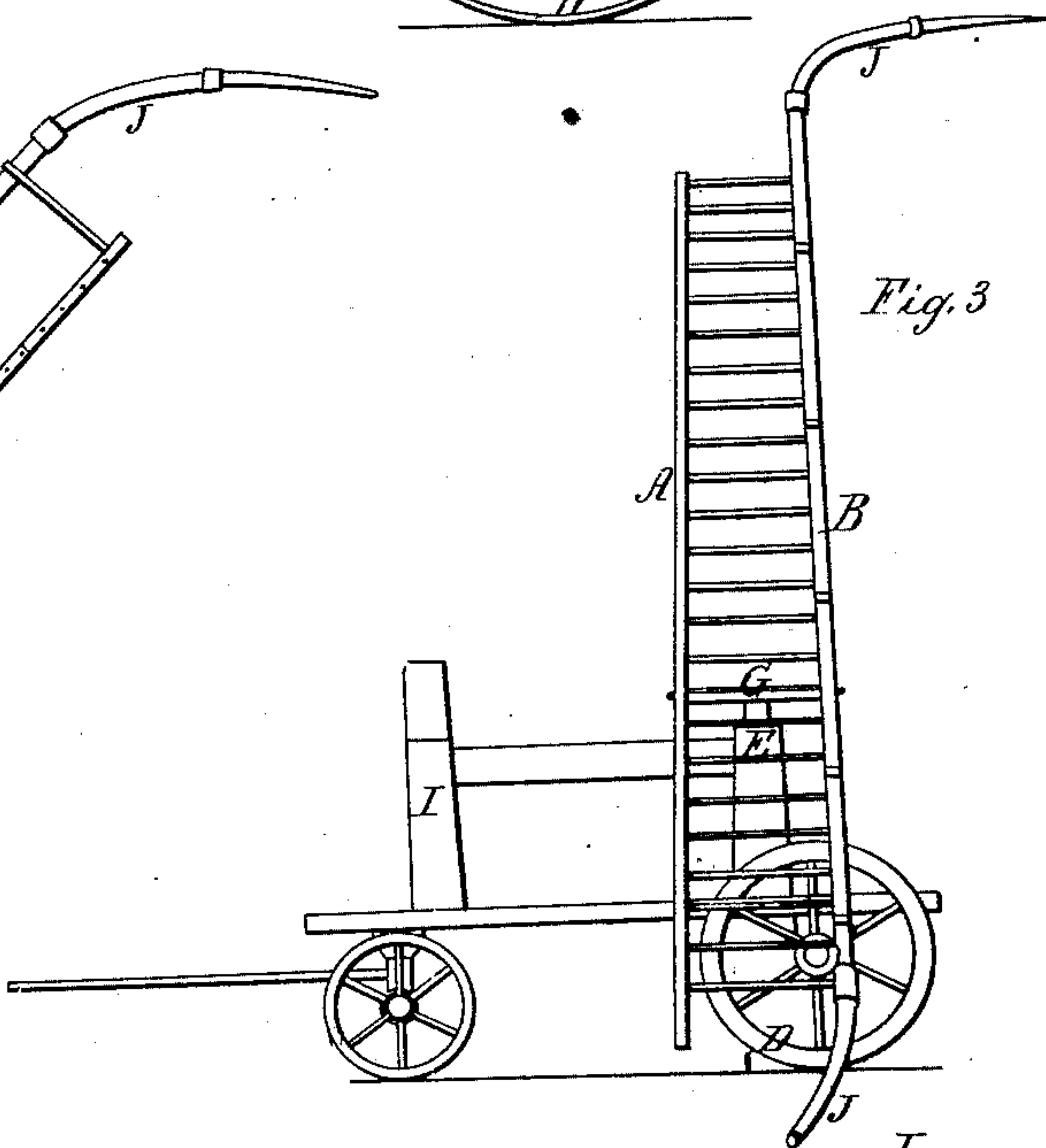
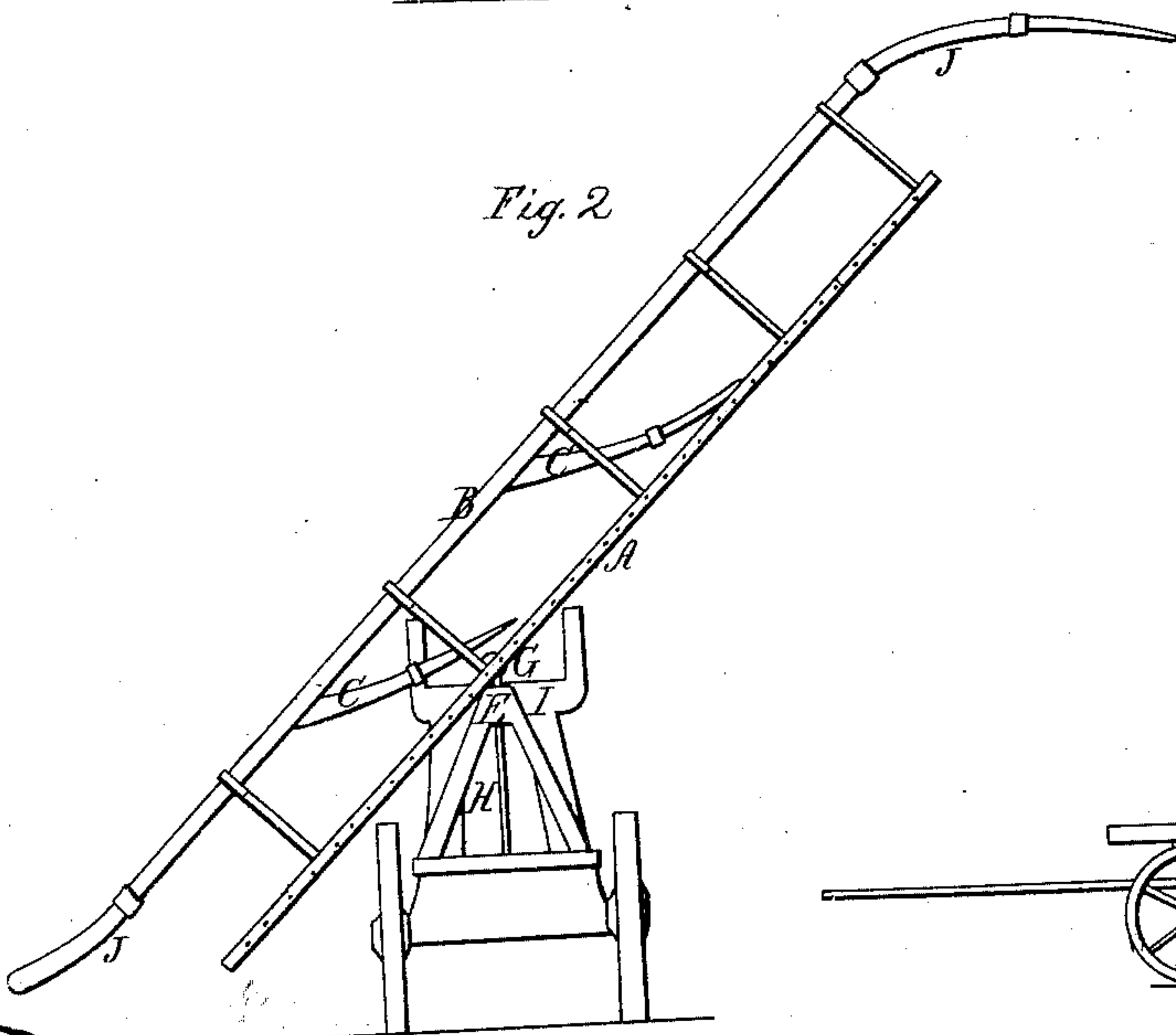
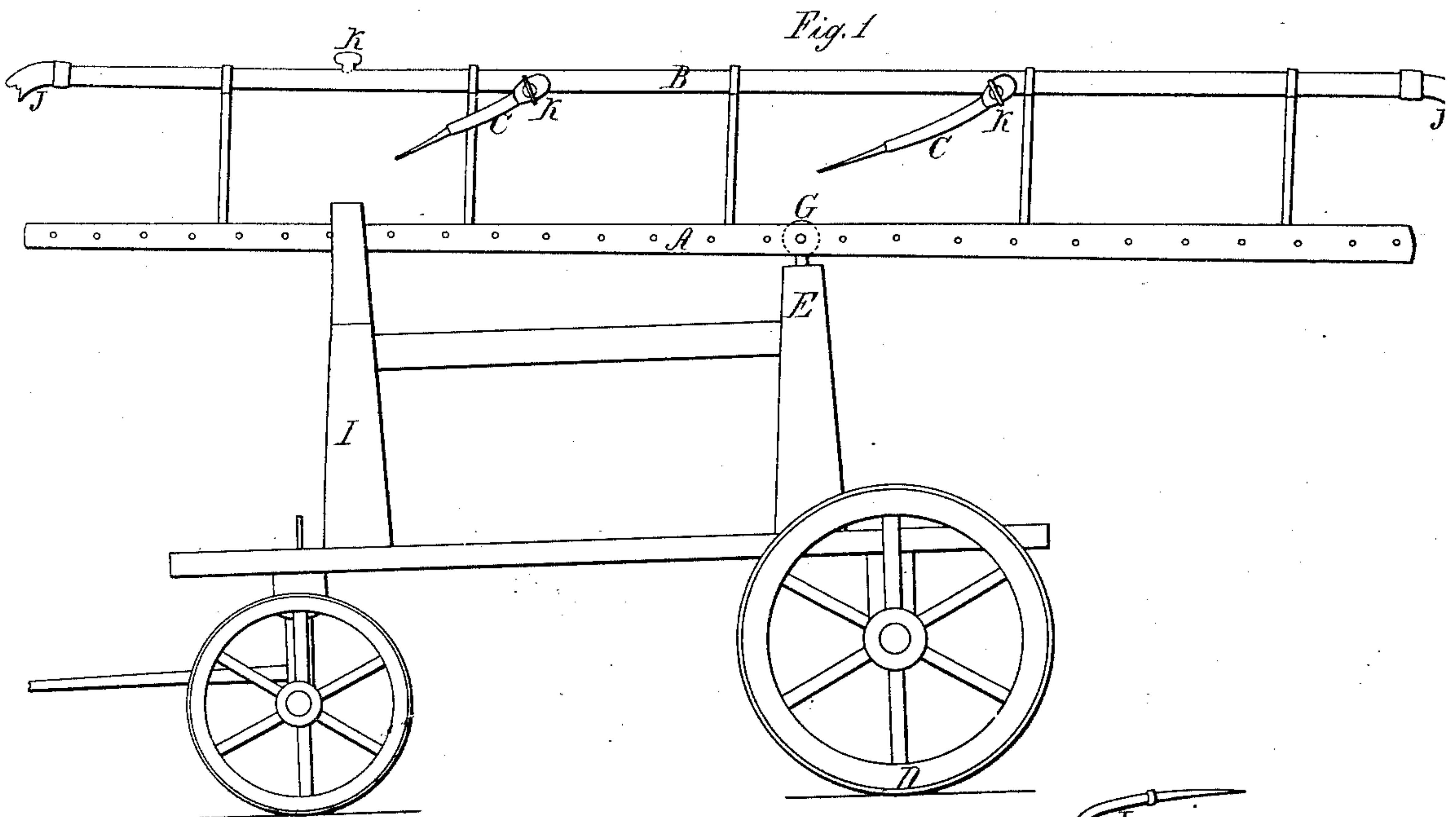


D. Fitzgerald

Fire Escape.

N^o 24,728.

Patented Jul. 12, 1859.



Witnesses:
Owen G. Warren
Mary Warren

Inventor
Daniel Fitzgerald

UNITED STATES PATENT OFFICE.

DANIEL FITZGERALD, OF NEW YORK, N. Y.

FIREMAN'S LADDER.

Specification of Letters Patent No. 24,728, dated July 12, 1859.

To all whom it may concern:

Be it known that I, DANIEL FITZGERALD, of the city, county, and State of New York, have invented a new and Improved Fireman's Ladder; and I hereby declare that the following is a full and exact description thereof.

To enable others to make and use my invention I proceed to describe its construction and operation, reference being had to the drawings hereunto annexed and to the letters of reference marked thereon which make part of this specification.

Figure 1, side elevation of the carriage and ladder, as prepared for movement; Fig. 2, rear elevation showing the ladder elevated; Fig. 3, side elevation showing the ladder elevated.

The same letters refer to the same things in all the drafts—A— one side of the ladder; —B— a hose or metallic pipe to convey water up to the top of the ladder; C, branch pipes for use part way up the ladder; D, heavy wheels of the carriage; E, swivel standard; G pivoted beam to which the swivel is attached; H the swivel; I the standard on which the upper part of the ladder rests when it is laid horizontal; J. flexible hose at top and bottom of the ladder; K, stop cocks to close the main hose, B, or the branches, C.

Upon a suitable carriage with heavy wheels and broad gage I place the swivel ladder. It rests mainly on the swivel standard, E, held by a long spindle, H, extending down through it. In the center of gravity of the ladder is a beam or cylinder, with a shaft or pivot at each end extending through each side of the ladder. Into this pivoted beam, G, the spindle, H, is fixed firmly, so that the ladder can be elevated on the pivots and turned around on the spindle. The ladder is so balanced that one man could raise it instantly, even though it were a hundred feet in length. When raised it is secured in place either by props or by ballast at the foot—and it can also be

secured by a chain to the body of the carriage. The steps of the ladder are intended to be broad and safe for ascending and descending. At two or three points up the ladder there are branch pipes, C, to be used, if required, and at the top several pipes may be used. The large hose, B, of the ladder is intended to be sufficient to carry up a large quantity of water.

The purposes of the swivel ladder are, first to be manageable in narrow streets where otherwise long ladders could not be used. On approaching a corner the ladder is raised, as seen Fig. 2, and lowered again if desired when the corner is passed. 2dly immediately on being drawn in front of a burning building it can be raised by one man, however long and heavy it may be, and thus the lives of persons in the upper rooms of high buildings be saved. 3dly it enables the firemen to place themselves at a high point over the fire to play down into the burning roof or the windows and thus extinguish a conflagration when otherwise it could not be reached. Thus the swivel ladder furnishes a desideratum in cities, where it has been impossible to have ladders of the length required on account of the impossibility of turning corners.

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

1. Suspending a ladder upon the standard, E, so that it may be elevated and turned in any direction, constructed and arranged substantially as above described.

2. The arrangement of the branch pipes, C, with their stop cocks, K, for use at various heights, as above described.

3. I also claim making the main pipe, B, serve as a hand rail to the ladder and to give it stiffness, by setting it up a little above and parallel to it, as above described.

DANIEL FITZGERALD.

Witnesses:

QUEEN G. WARREN,
MARY WARREN.