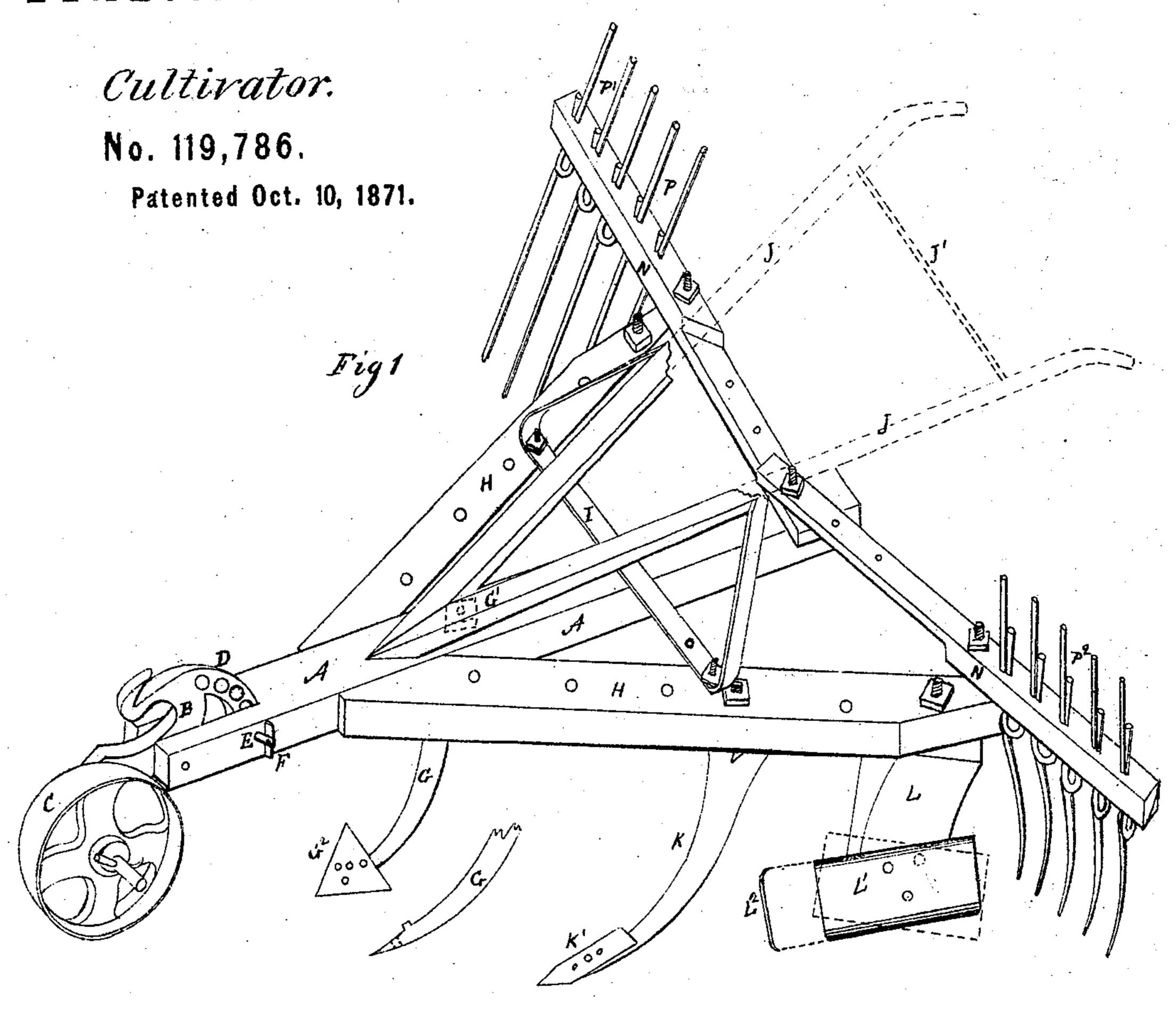
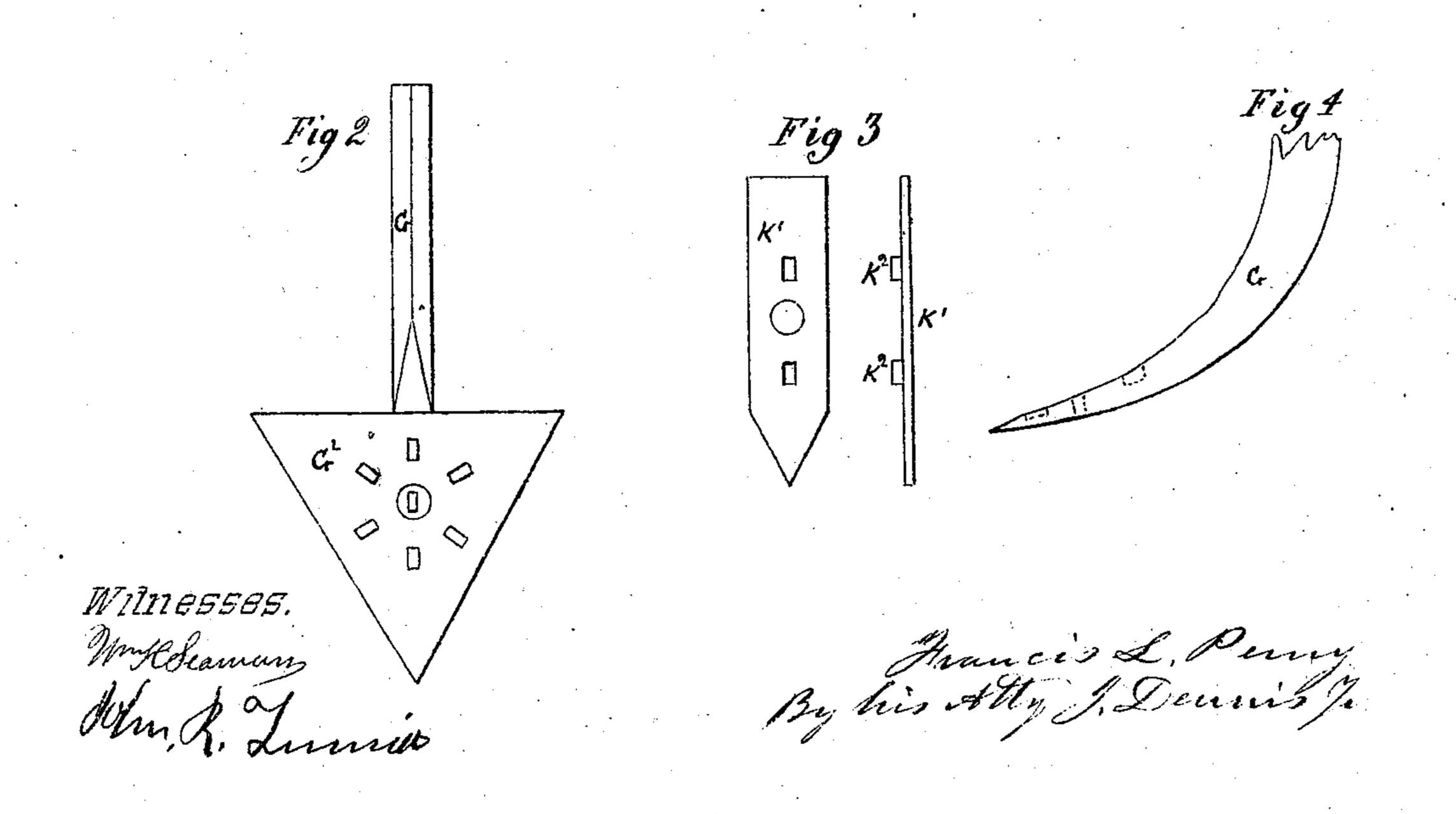
FRANCIS I PERRY.





UNITED STATES PATENT OFFICE.

FRANCIS L. PERRY, OF CANANDAIGUA, NEW YORK.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 119,786, dated October 10, 1871

To all whom it may concern:

Be it known that I, Francis L. Perry, of Canandaigua, Ontario county, in the State of New York, have invented certain new and useful Improvements in Cultivators; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

The nature or essence of my invention consists in the particular construction and arrangement of devices forming the improved cultivator described in the following specification and represented in the accompanying drawing.

In the drawing, Figure 1 is a perspective view of a cultivator with my improvements. Fig. 2 is a tooth with a triangular point attached. Fig. 3 shows a point with one end chisel-shaped and the other pointed. Fig. 4 shows a tooth without a point.

In the accompanying drawing, A is the center-piece or beam of the frame, provided with a vibrating clevis, B, carrying the gauge-wheel C. This clevis is arranged to vibrate on a pin in the beam A, and it has a perforated segment, D, for the pin E, which also passes through the beam, and may be placed in the different holes in the segment to adjust the wheel C and graduate the working depth of the cultivator. The pin E has the latch F riveted to the end, so that when it is straight with the pin the pin may be drawn out and put back again, when the latch falls to a right angle and holds the pin in. The central tooth G is fastened in the beam A by the nut G¹ on the top of the beam, and carries the triangular point or share G², which is fastened to the tooth by a screw in the center and prevented from turning by a pin in the tooth or shank G; and the share or blade is provided with three holes, so that when one point is worn it may be turned to bring a new point forward. The side bars H H are beveled at different angles at their opposite ends, so that they may be reversed when desired to make a narrow cultivator, and the teeth reversed in the bars. These bars are fastened to the beam by a bolt, and are connected to the beam and to each other by the stand I, to which they are respectively fastened by bolts; and the arms of the stand I support and brace the handles J J, which have their fore

ends fastened to the beam A and are connected by the bar J', as shown in the drawing. The teeth K are fastened in the side bars H H by screw-nuts, and are provided with reversible points K¹ fastened with a screw to the tooth or stock, and may be used either chisel or pointed end forward, as may be preferred. There are two recesses in the tooth to receive two lugs on the point, which lugs K² are made by heating the point and laying it over a hole and driving a punch against the plate, so as to push some of the steel of the plate into the hole below and form a teat or lug on the plate to fit the recess in the tooth. I make some wide stands, L, and fasten them to the rear ends of the bars H by bolt and nuts, to carry the wide shares or scrapers L¹, which are fastened to the stands L by two bolts; and I make two holes for the upper bolt in the stand or in the scraper, or in both, so as to tip the scraper and make the outer corner highest when it is desirable to hill the standing crop and lowest when it is desirable to throw the weeds and earth toward the middle of the row or from the crops. I fasten the bars N N by bolts to the rear ends of the beam A and side bars H H, to form outriggers to carry the teeth P P¹ P², which may be made straight, as P, Fig. 1, or with a coil in them, as shown at P¹, or bent and with a coil, as at P². These teeth are fastened high or low in the bars N to adjust them to the service they are intended to perform. The object and purpose of these teeth in the outriggers is to remove weeds from the hills and rows of the crops cultivated by this instrument. The share or scraper L¹ has both its longest edges curved, as shown in the end view L², so that it may be used either end forward or either side up.

I claim—

1. Beveling the ends of the side bars H H at different angles and arranging them to be reversed to make the cultivator wide or narrow, substantially as described.

2. The outriggers N N attached to the cultivator, substantially as described, and provided with rigid or spring-teeth made of round or oval wire, for purpose set forth.

FRANCIS L. PERRY.

Witnesses:

THOS. A. WEAKLEY, E. W. GARDNER.