(No Model.)

2 Sheets—Sheet 1.

E. A. WRIGHT.

ROAD SCRAPER.

No. 584,720. Patented June 15, 1897.

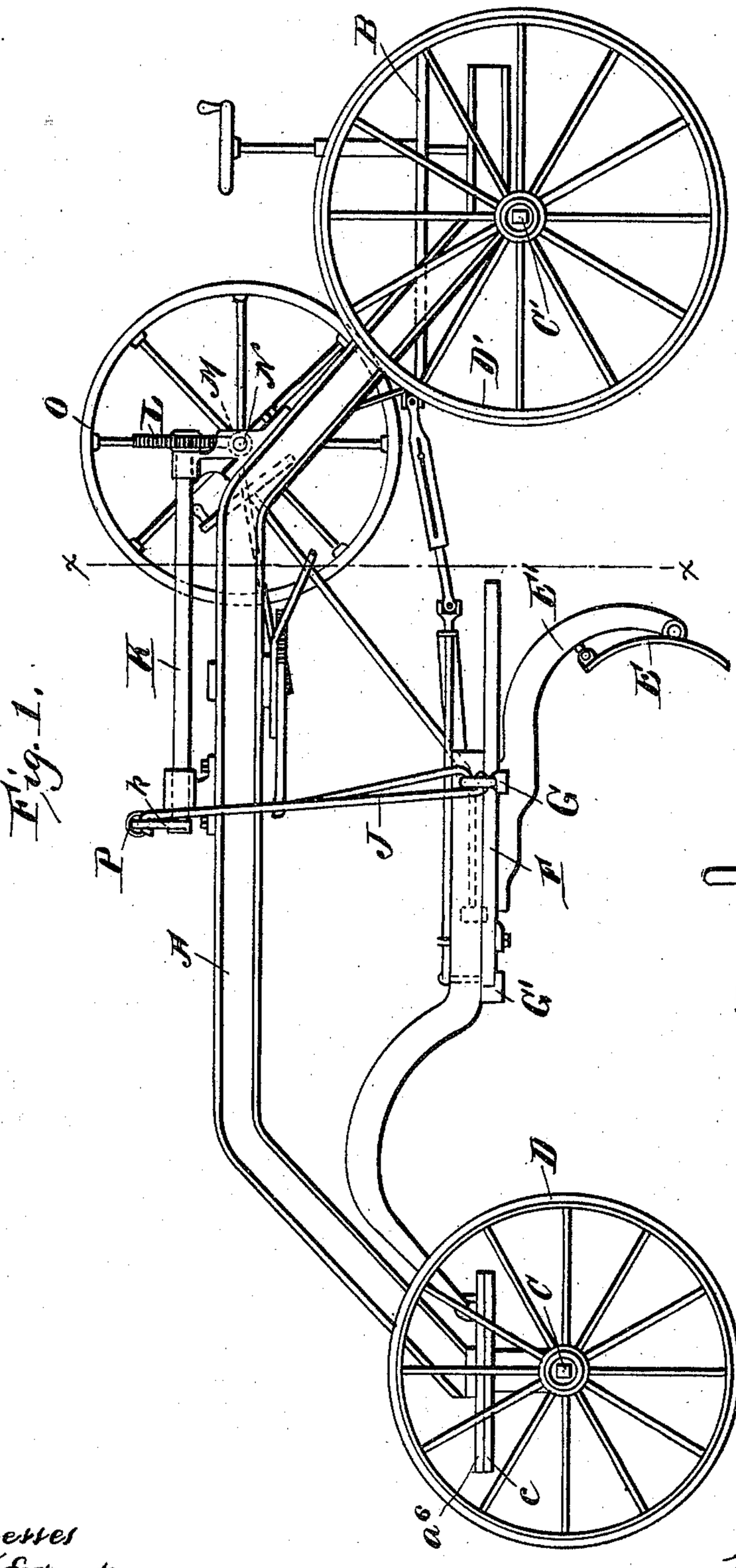


Fig. 1.

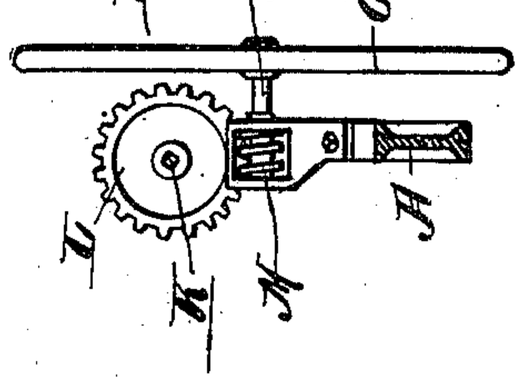


Fig. 4.

Witnesses
Wm. H. Edwards
Arthur L. Bryant

Inventor
Edgar A. Wright
By H. H. Bliss
Atty

(No Model.)

2 Sheets—Sheet 2.

E. A. WRIGHT.

ROAD SCRAPER.

No. 584,720. Patented June 15, 1897.

Fig. 2.

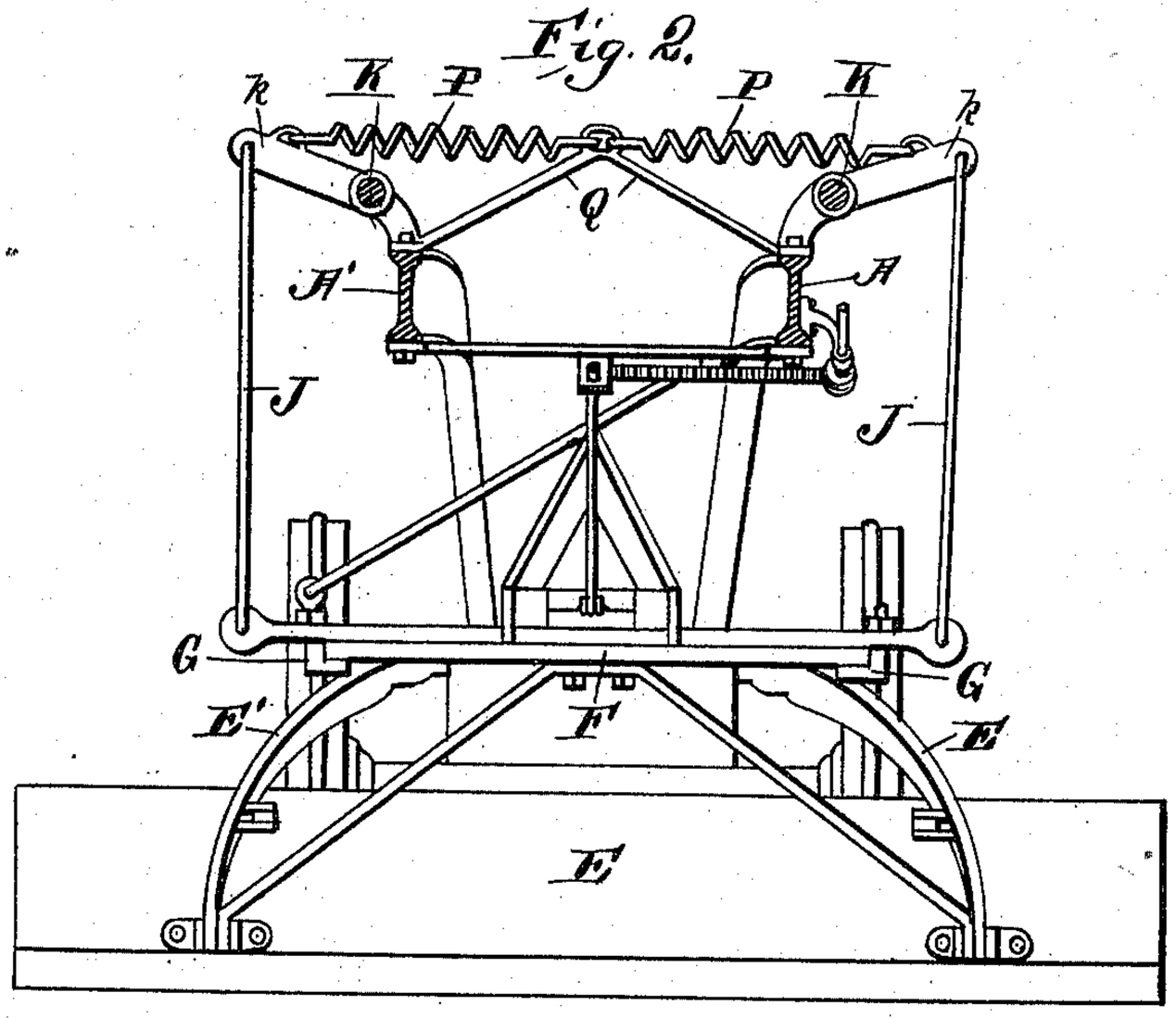
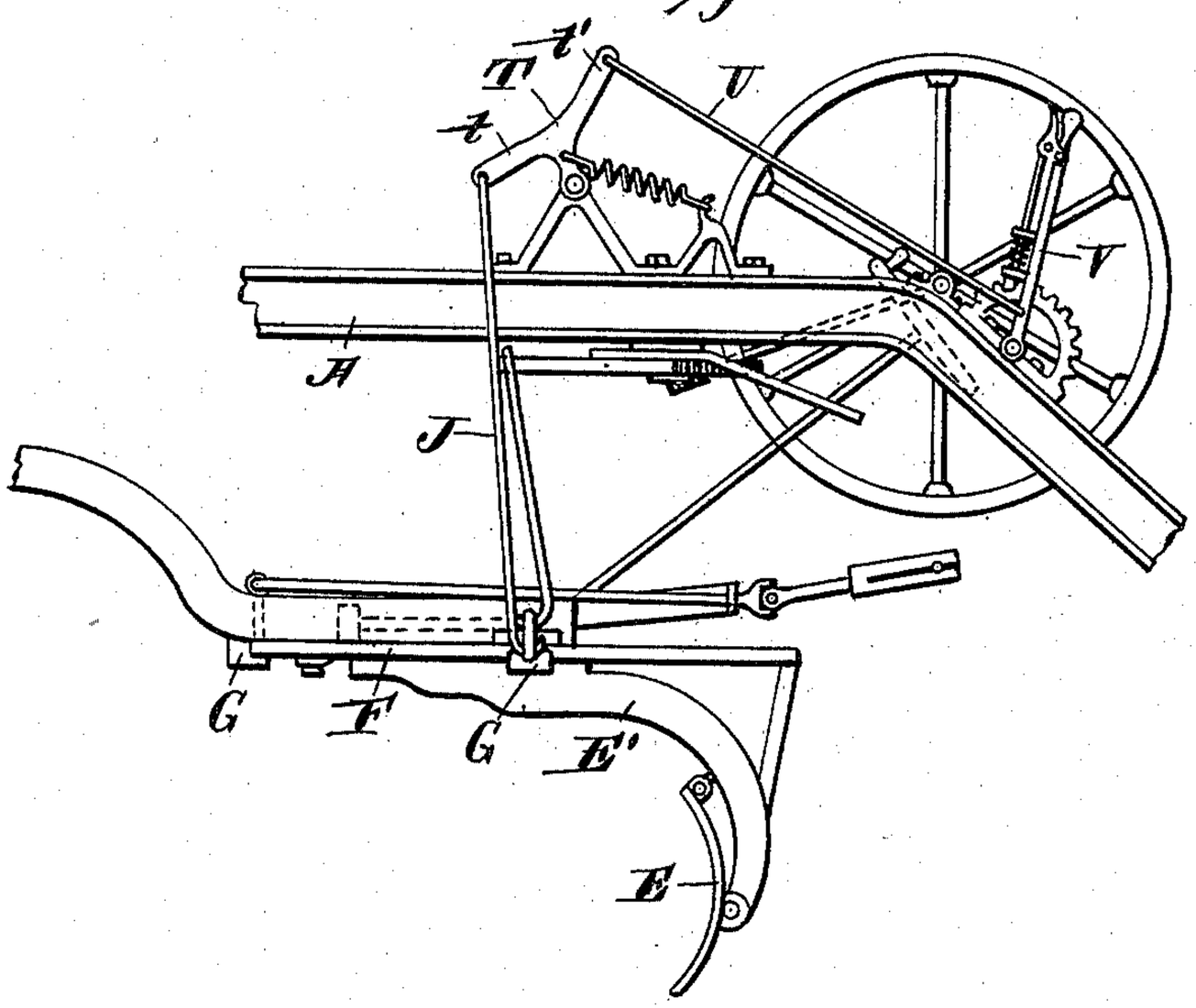


Fig. 3.



Witnesses
Wm. A. Edwards
Arthur L. Bryant

Inventor
Edgar A. Wright
By H. H. Bliss
Atty.

UNITED STATES PATENT OFFICE.

EDGAR A. WRIGHT, OF KANSAS CITY, MISSOURI, ASSIGNOR TO THE AULTMAN COMPANY, OF CANTON, OHIO.

ROAD-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 584,720, dated June 15, 1897.

Application filed February 2, 1897. Serial No. 621,647. (No model.)

To all whom it may concern:

Be it known that I, EDGAR A. WRIGHT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Road-Scrapers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation of a road-scraping machine embodying my improvements. Fig. 2 is a transverse vertical sectional view on the line 2 2 of Fig. 1. Fig. 3 illustrates in side view a slight modification of the blade-lifting devices. Fig. 4 is a detail view.

The apparatus is mounted upon and carried by a wheeled supporting-frame consisting of the longitudinally-extending frame-bars A A′, which bars are suitably connected together at intermediate points of their length. The front axle C, on which are mounted the wheels D, carries a ring-like support *c*, on which rests a similar-shaped plate or member a^6, connected to the aforesaid bars A A′, said plate being connected by a king-bolt in the ordinary manner. At the rear the bars A A′ rest upon the axle C′, carrying the wheels D′. A platform B for the operator is provided at the rear of the machine.

E designates the scraper-blade, which may be of any suitable or preferred form. In the mechanism illustrated this blade is carried by curved arms E′, which extend forwardly and are connected to a ring or plate F. This ring is supported from a draft-frame I by means of lugs or clips G G′.

J designates upwardly-extending links by means of which either end of the scraper-blade can be adjusted vertically. The lower ends of these links are connected to the scraper-supporting devices and the upper ends thereof are connected with cranks *k*, secured to the forward end of longitudinally-extending rock-shafts K, journaled in suitable bearings on the main-frame bars A A′. At the rear end each shaft K carries a worm-wheel L, with which meshes a worm M, carried by a transverse shaft N, on the inner end of which is mounted a hand-wheel O.

It will be seen that by turning either hand-wheel O the operator, standing on the platform B, can raise either end of the scraper.

To assist in lifting the scraper and its supporting parts, I provide springs P. In the embodiment of my invention illustrated in Figs. 1 and 2 the inner ends of the springs P are connected to a centrally-arranged support Q, and the outer end of each of said springs is connected directly with one of the crank-arms *k*.

It will be seen that the tension of the spring P adjacent to the side of the scraper being adjusted will increase as the blade E is lowered, but that when the parts are in their lowered position and the blade is ready for operation the spring and crank-arm K will be so related that the blade will be practically relieved entirely from the upward pull of the spring, but as soon as the operator starts either end of the blade upward, by means of the devices actuated by the hand-wheel O, the spring P becomes active and materially assists in lifting the blade and its draft-frame.

In Fig. 3 I have illustrated another slight modification. In this construction the worm-gearing above described for adjusting the links J vertically is dispensed with and the upper ends of said links are connected to arms *t* of levers T, fulcrumed on suitable supports on the main-frame bars A A′. To the other arms *t′* of the last-said levers are connected draft rods or cables U, the rear ends of which are connected with suitable hand-levers V.

As the devices herein illustrated for shifting the scraper-blade laterally and for adjusting the same about a vertical axis are similar to those shown and described more in detail in my pending application, Serial No. 608,620, it is not deemed necessary to specifically describe the same herein.

What I claim is—

1. In a road-scraping machine, the combination of a wheeled supporting-frame, a scraper-blade, two vibrating levers mounted on the main frame, connections between one of said levers and one end of the scraper, con-

nections between the other lever and the other end of the scraper, lifting-springs one connected to each of said vibrating levers and to the supporting-frame, and independent means adapted to be actuated by hand connected to said vibrating levers, substantially as set forth.

2. In a road-scraping machine, the combination of a wheeled supporting-frame, a scraper-blade, links extending upwardly from the scraper-blade, lifting-springs mounted on the main frame and connected with said links, means for positively moving said links vertically and means for locking the scraper in any adjusted position, substantially as set forth.

3. In a road-scraping machine, the combination of a wheeled supporting-frame, a scraper, links for moving the scraper vertically, two independent springs mounted on the supporting-frame and each connected with one of said links, the tension of said springs being increased as the scraper descends, means for reducing the pull of the springs on the scraper when the latter is in working position, and means for locking the scraper in any adjusted position, substantially as set forth.

4. In a road-scraping machine, the combination of a wheeled supporting-frame, a scraper, independent links for adjusting each end of the scraper vertically, two transversely-extending lifting-springs mounted on the supporting-frame, and connected with the links for adjusting the scraper vertically, and means for locking the scraper in any adjusted position, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDGAR A. WRIGHT.

Witnesses:
L. H. THIELE,
M. M. ELDER.