

(No Model.)

J. E. PORTER.

HAY CARRIER ELEVATING PULLEY AND YOKE.

No. 535,725.

Patented Mar. 12, 1895.

Fig. 1.

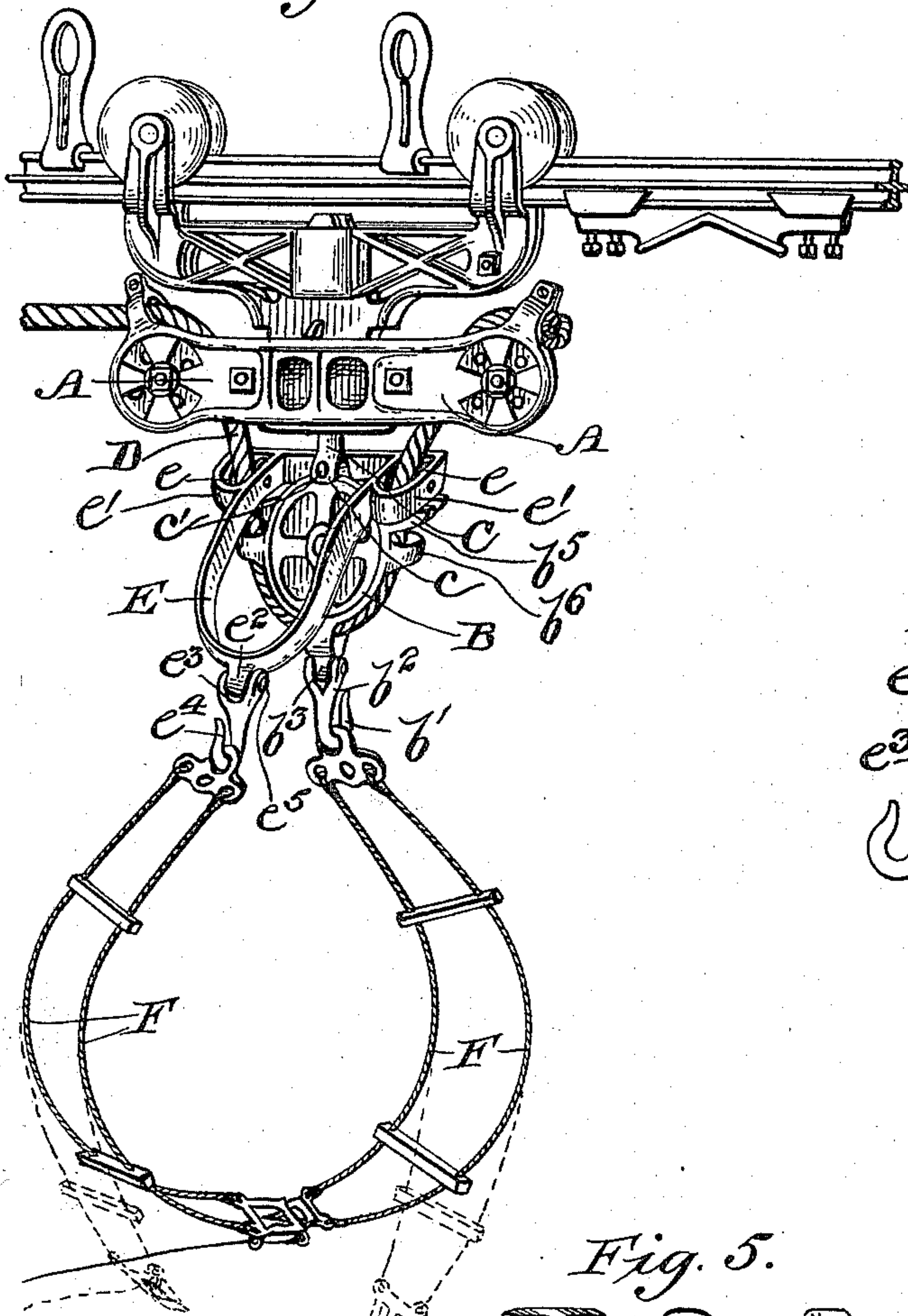


Fig. 2.

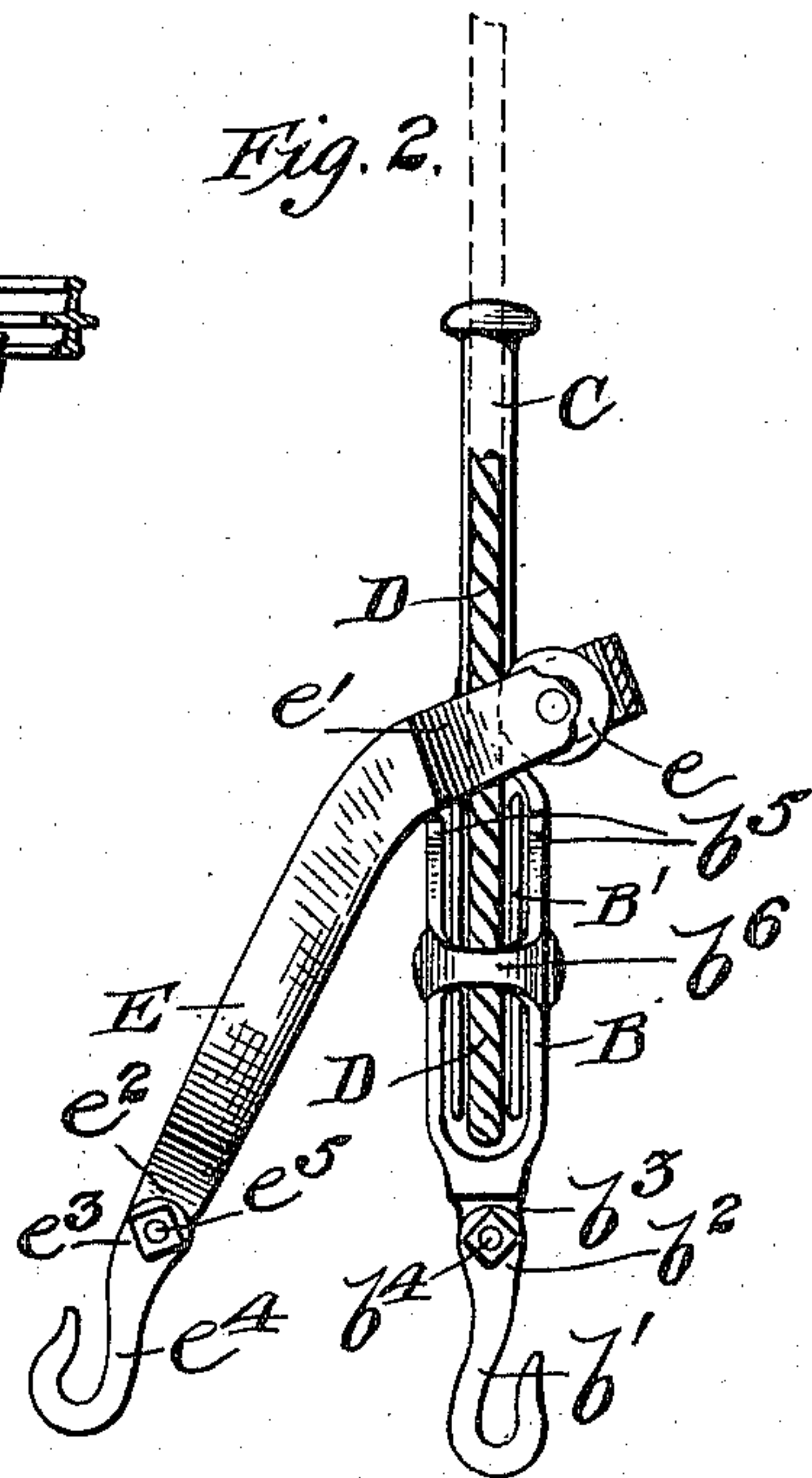


Fig. 3.

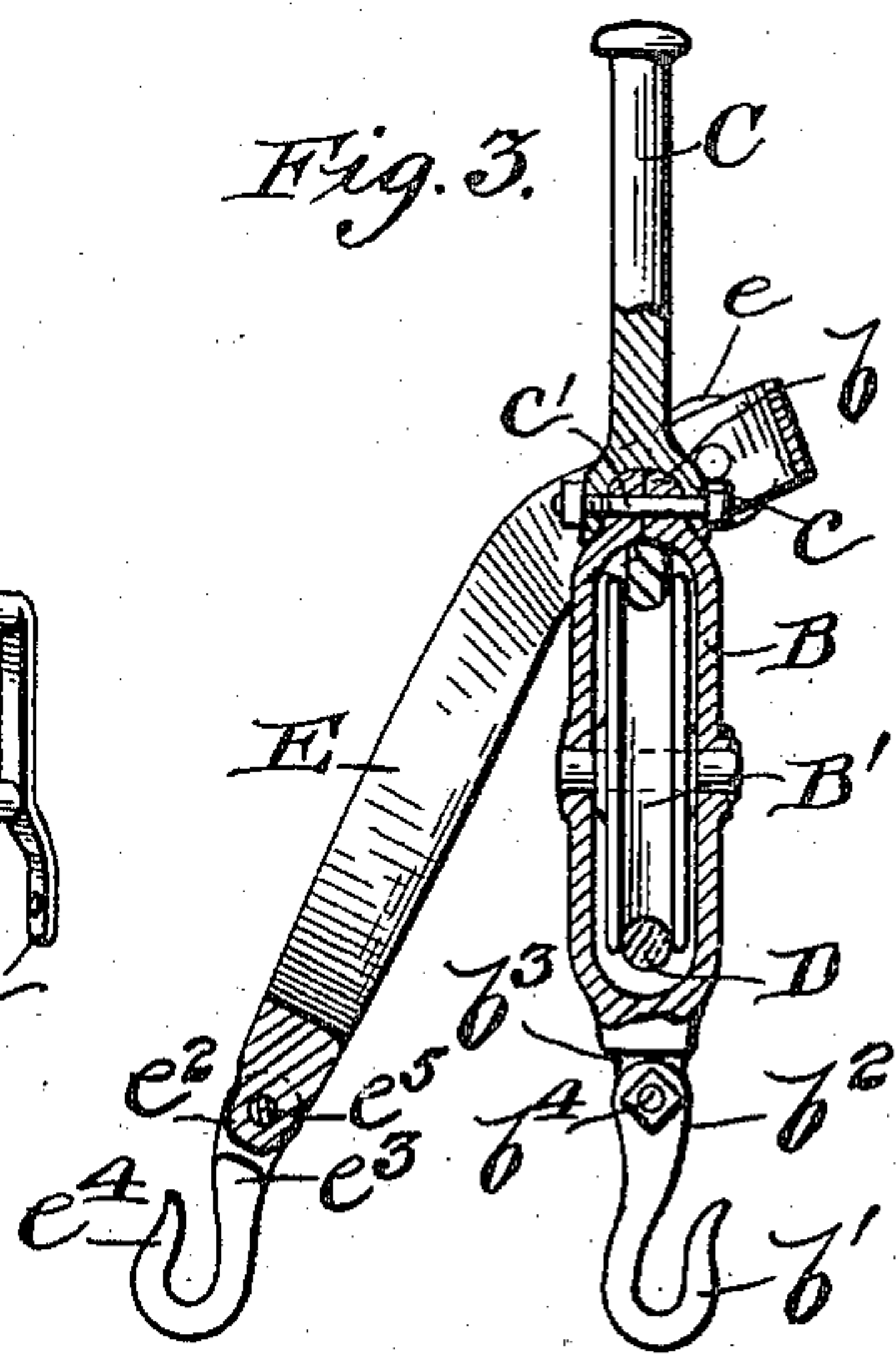


Fig. 5.

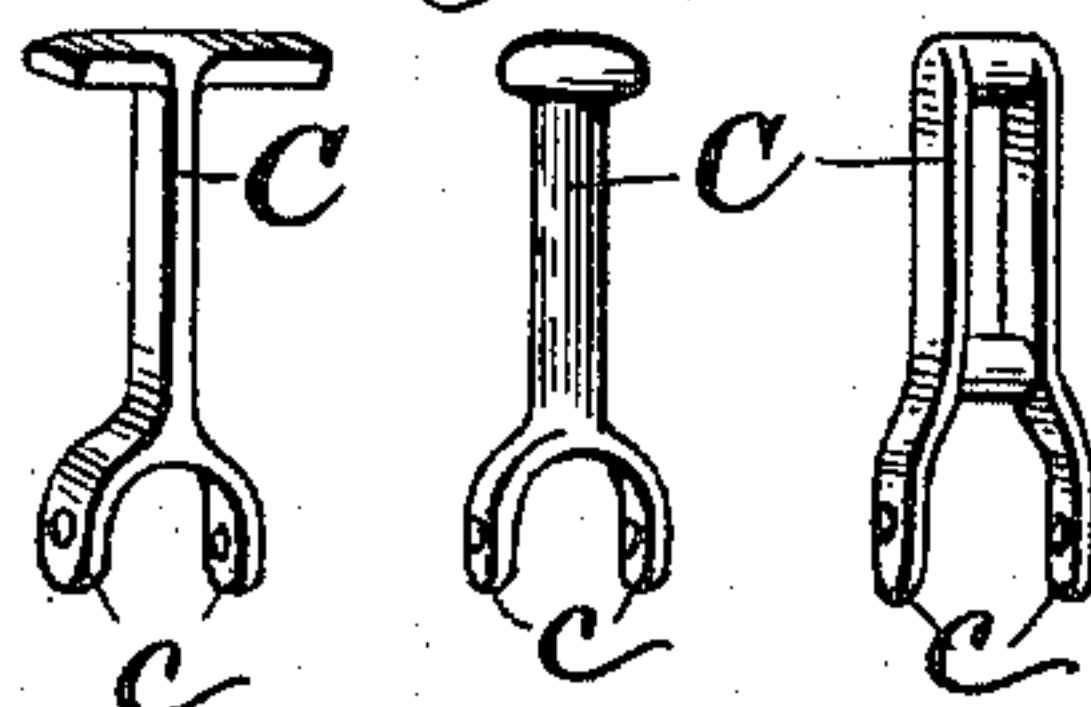
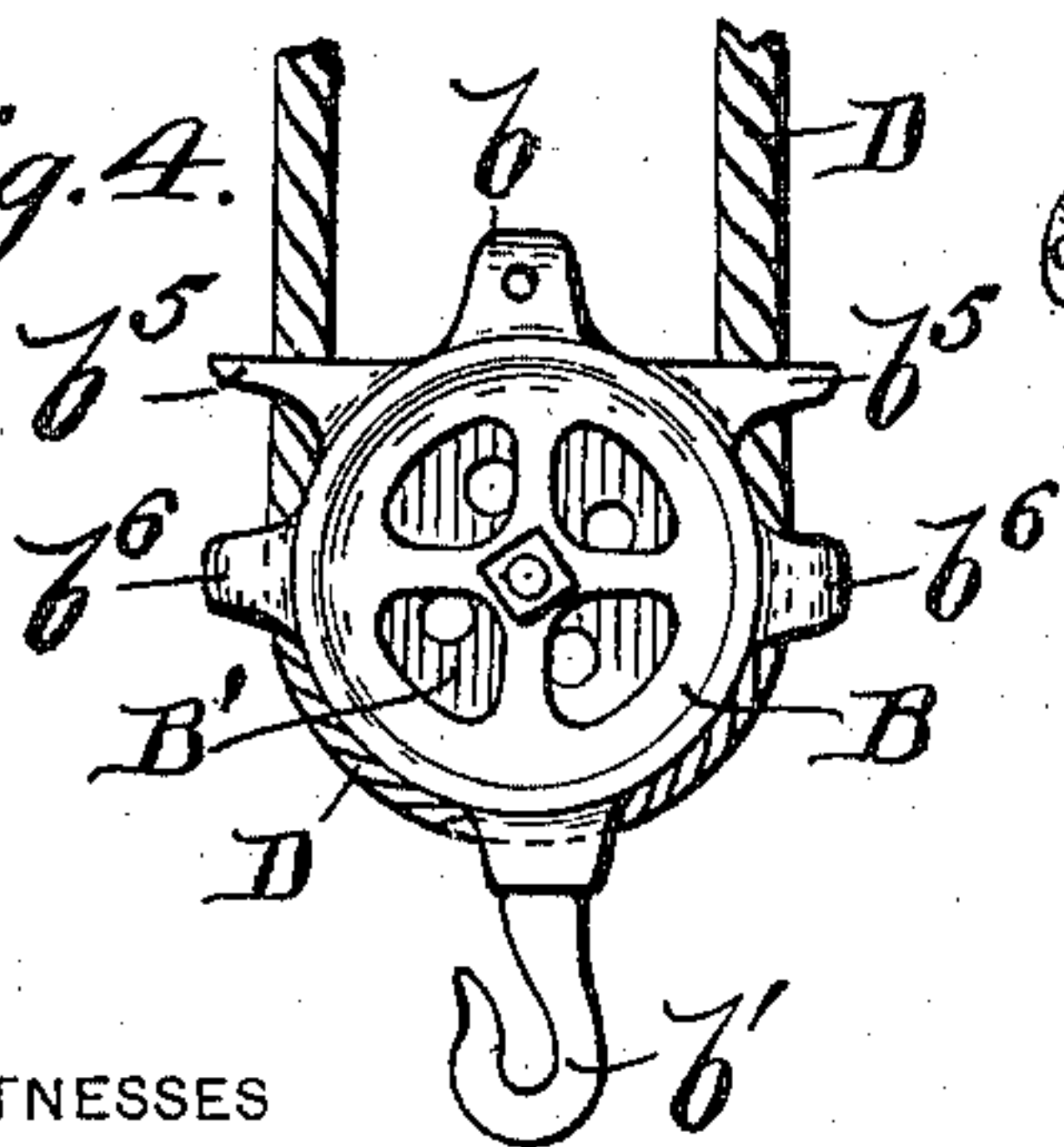


Fig. 4.



WITNESSES

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HAY-CARRIER ELEVATING PULLEY AND YOKE.

SPECIFICATION forming part of Letters Patent No. 535,725, dated March 12, 1895.

Application filed December 13, 1894. Serial No. 531,721. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH E. PORTER, a citizen of the United States, residing at Ottawa, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Hay-Carrier Elevating Pulleys and Yokes; and I do hereby 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.

My invention relates to improvements in hay carrier elevating pulleys and yokes, and it consists of a sling supporting trip pulley, provided with a locking and supporting head, and a supporting clevis or yoke adapted to engage the operating rope above said pulley in such manner as to allow the head of the latter to pass through it and engage the carrier; said yoke resting on said pulley when the load is raised.

It also consists of the combination with a sling supporting trip pulley provided at its top with an apertured lug, of a locking head provided with a bifurcated end adapted to fit over and be secured to said lug, whereby different shaped heads may be attached to said pulley, at will.

It also consists of certain other novel constructions, combinations and arrangements of parts, all of which will be hereinafter more particularly set forth and claimed.

In the accompanying drawings forming part of this specification, Figure 1. represents a perspective view of the devices embodying my invention attached to a hay carrier. Fig. 2. represents a side elevation of the trip pulley and yoke. Fig. 3. represents a central vertical section of the devices shown in Fig. 2. Fig. 4. represents a side elevation of the trip pulley without its supporting and locking head, and Fig. 5. represents perspective views of the different forms of supporting and locking heads adapted to be attached to the trip pulley.

A in the drawings represents a hay carrier provided with any suitable trip pulley engaging mechanism.

B is a trip pulley for supporting one end of a hay sling. To the top of this pulley a locking head C is applied so as to be a fixture with the pulley. As one manner of securing this

locking head to the pulley, a lug *b* having passages through it, is provided at the top of the pulley, and on the locking head prongs *c* are provided, at its lower end. These prongs also have passages through them which coincide with the passage in the lug when the prongs are made to straddle or fitted over the said lug. A bolt *c'* is passed through said prongs, and the lug, for the purpose of fastening the locking head to the pulley frame or housing. This mode of connecting the head to the pulley frame or housing is new as a specific construction, and is very useful as will hereinafter appear, but while this is so I do not limit my invention to this one mode of connecting the locking head to the pulley frame or housing, as the locking head may be secured to the pulley frame or housing, either by screwing its lower end into the frame or housing of the pulley-wheel, or by making the locking head integral with said housing, but neither of these constructions afford the advantages that are secured by the special construction shown. A sling supporting hook *b'* which has a bifurcated end *b²*, is pivoted on a lug *b³* on the lower part of the pulley frame or housing, by means of a bolt *b⁴* which passes through said bifurcated end, and said lug. The pulley is also provided with guiding lugs *b⁵* and loops *b⁶*; the latter connecting the halves of the pulley frame or housing, and preventing the supporting rope D from jumping off the pulley wheel B', and the former guiding said rope, so that it will always pass evenly onto said pulley-wheel even though it be in an inclined position.

The pulley with its locking and supporting head and sling hook, forms one member of my sling support, the other being formed by a yoke E. This yoke is provided at its upper end with pulley wheels *e* which are journaled in and surrounded by casings *e'*, so that the rope D passing over said pulleys is guided and retained on them by said casings. Said yoke is also provided at its lower end with a lug *e²* upon which is pivoted by a bolt *e⁵* the bifurcated end *e³* of a sling supporting hook *e⁴*. The yoke E near its upper end is bent at an angle, see Fig. 2, so that when the sling is in position, the load raised, and the locking head in engagement with the carrier, the said yoke will rest evenly upon the top of the pulley,

and be thereby supported; the head and a portion of the pulley passing through said yoke in a vertical line.

Any suitable form of sling F can be attached to the hooks b' and e^4 , and the same thereby operated.

The rope D has one end made fast to the carrier, and is passed down over one pulley e , about the pulley-wheel B' , and up over the other pulley wheel e , and then over the pulley on the opposite side of the carrier. It will thus be seen that when the load is to be attached to the sling, the pulley B and the yoke E can be separated as much as desired, and the sling applied. When the rope D is tightened the yoke and the pulley are gradually drawn together until the yoke rests upon the pulley, when the load is firmly caught, and can be raised, locked to the carrier and conveyed to the desired point.

By means of my peculiar form of pulley with its lug b and head c having bifurcated end, I am enabled to apply my device to any form of carrier, as the different represented styles of heads can be applied to the pulley. See Fig. 5. It will also be noted that by having the hooks e^4 and b' pivoted, that the strain on the yoke E and the pulley B will be more directly downward, and thus said hoops will not be unduly spread apart by the size of the load being carried.

What I claim as my invention is—

1. A hay carrier elevating pulley and yoke, comprising a pulley provided with an engaging and supporting head, and a yoke through which the head is adapted to pass to engage a carrier, and which yoke when the head is engaged with the carrier, rests upon the top of the pulley, substantially as described.

2. A hay carrier elevating pulley and yoke, comprising, a pulley provided with a detachable locking and supporting head, and a yoke through which the head is adapted to pass to engage the carrier and which yoke when the head is engaged with the carrier is supported by the pulley from below, substantially as described.

3. A hay carrier elevating pulley and yoke,

comprising, a pulley provided with a detachable locking and supporting head; said head having its lower end bifurcated, a bolt for attaching the head to the pulley, and a yoke through which the head is adapted to pass to engage a carrier and which yoke when the head is engaged with the carrier is supported by the pulley from below, substantially as described.

4. The combination of a trip pulley having a supporting and locking head and a pivoted sling supporting hook, a clevis or yoke provided with a pivoted sling supporting hook and adapted to engage supporting ropes above the pulley, but allow the head of the pulley to pass therethrough to engage the carrier; said yoke being supported by said pulley from below when the locking head engages the carrier, substantially as described.

5. The combination of a sling supporting trip pulley provided with a locking and supporting head, a sling supporting clevis or yoke having wheels adapted to engage the supporting ropes above the pulley but allow the head of the same to pass therethrough to engage the carrier; said yoke when the head is engaged with the carrier being supported by the pulley from below, substantially as described.

6. In combination with a hay carrier, a sling supporting trip pulley provided with a locking and supporting head, and a yoke adapted to engage the operating ropes above said pulley; the upper part of said yoke being bent inward, whereby the pulley carrying the locking head is allowed to stand in a line vertical with the passage of the carrier into which the locking head enters, and thus while the said locking head can pass through the yoke, the pulley may remain below the inwardly bent portion of the yoke, substantially as described.

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

JOSEPH E. PORTER.

Witnesses:

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W. I. HARRIS.