(No Model.)

J. R. KENNETT.

HARNESS D.

No. 408,661. Patented Aug. 6, 1889.

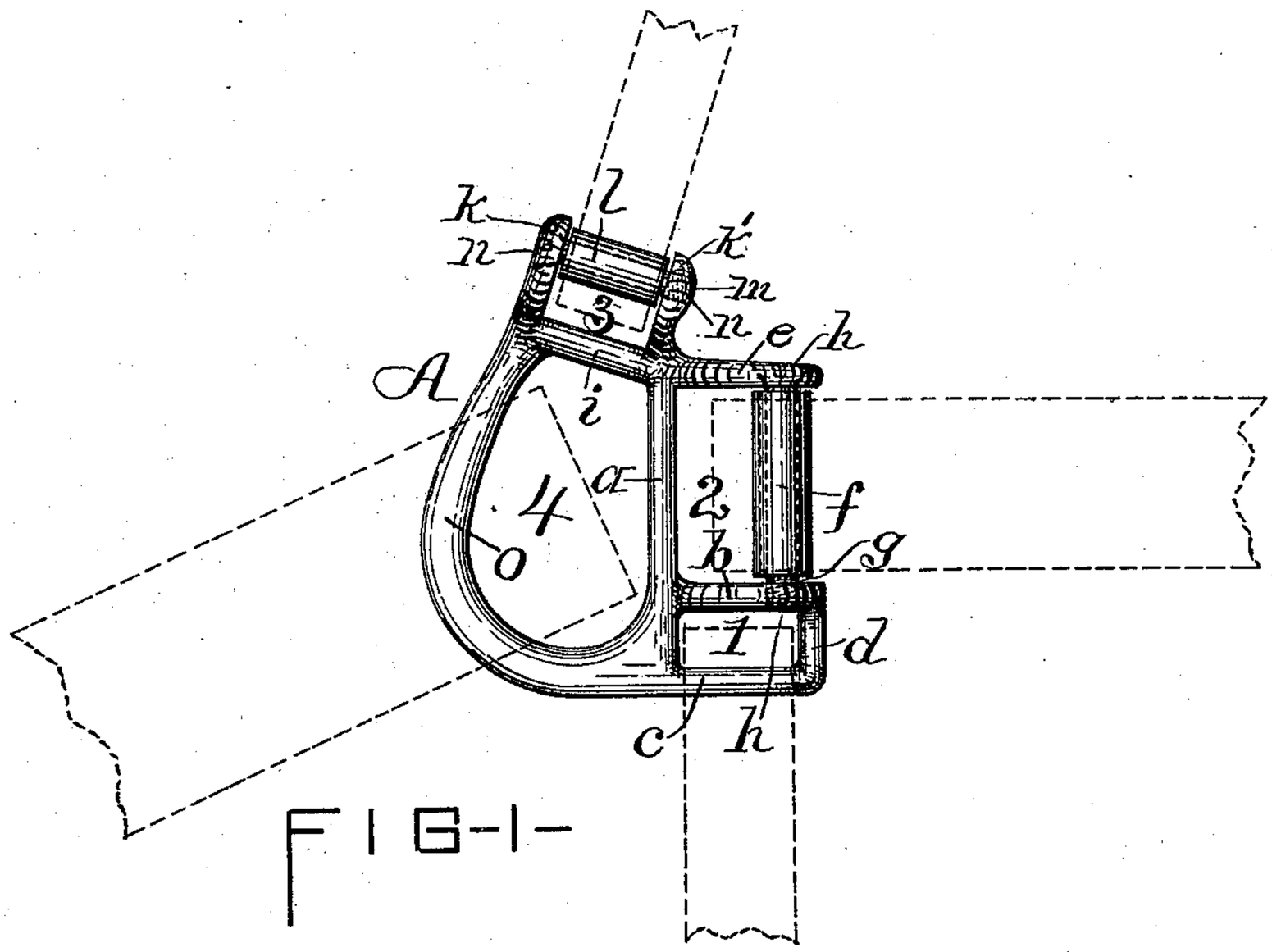

FIG-1-

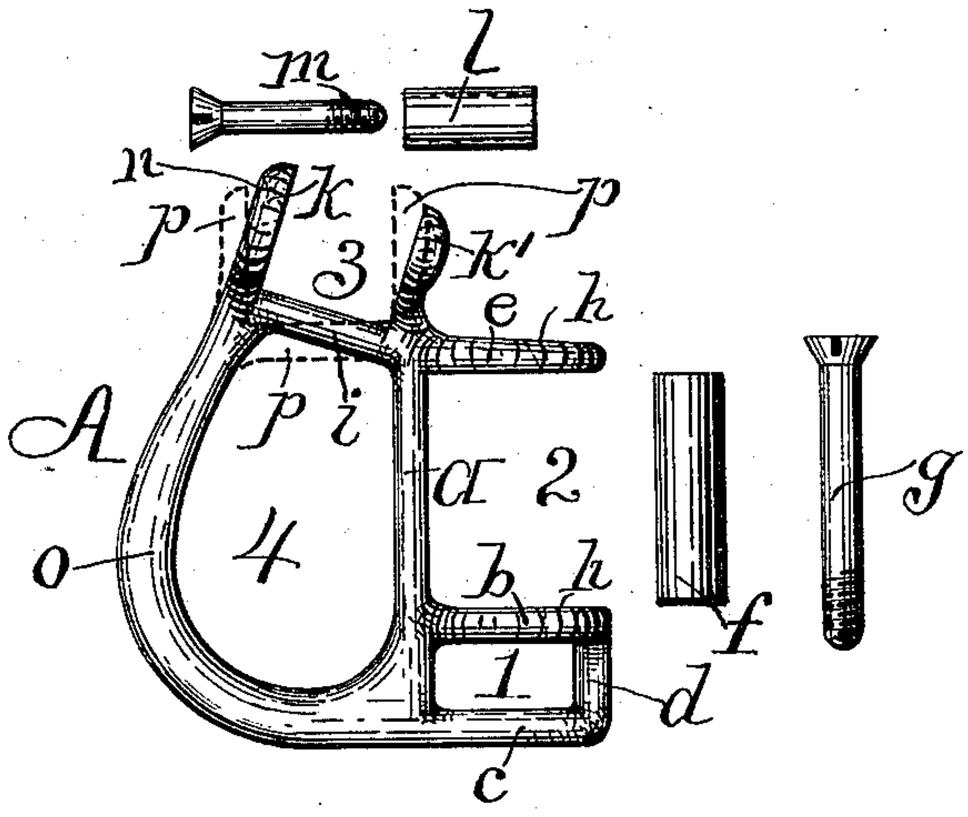

FIG-2-

Witnesses—

Parke W. Hicks

Wm. Woodward

Inventor—

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By his Attorney—

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UNITED STATES PATENT OFFICE.

JOHN R. KENNETT, OF SYRACUSE, NEW YORK.

HARNESS-D.

SPECIFICATION forming part of Letters Patent No. 408,661, dated August 6, 1889.

Application filed March 16, 1889. Serial No. 303,549. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. KENNETT, of Syracuse, county of Onondaga, in the State of New York, a citizen of the United States, have invented certain new and useful Improvements in Harness-D's, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation thereof showing my device complete and adapted for use; and Fig. 2 a similar view but showing the rollers and their spindles detached from the D-frame.

Similar letters and figures of reference indicate corresponding parts throughout the several views.

My invention relates to an improvement in that class of devices appertaining to harnesses, commonly known as "harness-D's," designed for the connecting or grouping together of certain portions of the harness.

My object is to produce a harness-D, of increased durability, utility, and operation, comparatively inexpensive and expeditious of manufacture, and of such novel formation and combination of parts as to insure to the attached harness-straps proper connection, adjustment, reliable action, and maintenance of correct position at their points of connection to the harness-D.

My invention consists in the several novel features of construction and combination of parts hereinafter described, and which are specifically enumerated in the claims hereunto annexed.

It is constructed as follows: A represents the frame proper thereof formed of one integral casting. This frame comprises the elongated vertical bar *a*, from which diverge at a side of its lower portion the horizontal bars *b c* vertically a short distance apart from each other, that terminate a desired distance outward in the vertical connecting-bar *d*, and thus forming the opening 1 for the insertion of an end of the lazy-strap, which is carried around the bar *c*, as shown by dotted lines in the drawings. On this same side there diverges from the upper end of the vertical bar *a* the horizontal bar *e*, extending outward about the same distance as the lower horizontal portions *b c*. This bar *e*, in connection with the vertical bar *a* and horizontal bar *b*, forms the slotway 2 of the frame, in which slotway is placed the vertical roller or sleeve *f*, by means of a vertically-disposed screw-bolt *g* (or other spindle) inserted through coincident holes *h* in the bars *e* and $b^{\times}$ and passing loosely through the roller. Around this roller *f* passes the breeching-strap, as shown by dotted lines.

From the upper end of the vertical bar *a*, from about in line with the junction of the horizontal bar *e* thereto, and from the opposite side, diverges outwardly at a slight upward inclination the short cross-bar *i*, from the uppermost extremity of which there stands upward the inclined projection *k*, that, in conjunction with a similar projection *k'*, standing upward from the upper termination of the vertical bar *a* and parallel with the direction of the adjacent projection *k*, creates the slotway 3 of the D-frame, in which is placed in position a roller *l*, adapted to turn on a spindle or threaded bolt *m*, passing through coincident holes *n* in the respective projections, and around which roller passes the hip-strap, as illustrated by dotted lines in the drawings. The respective projections *k* and *k'* are of equal length and at a right angle to the cross-bar *i*.

At the junction of the cross-bar *i* and projection *k* there downwardly diverges the elongated curvilinear bar *o*, inclining outwardly a portion of its downward distance, and thence connecting with the vertical bar *a* by a semicircular curve at its upper side, and at its lower portion horizontally, and in line with the lower face of the adjacent horizontal bar *c*, thereby forming the large vertically-elongated aperture or D-shaped opening 4, through which is adapted to pass the holdback-strap connected to the curvilinear portion *o*, as shown by dotted lines in the drawings.

At *p*, Fig. 2, I illustrate a slight variation in construction, showing by dotted lines the projections *k k'* as standing upward directly vertical and the cross-bar *i* as horizontal. Preferably I construct said portions, as shown in full lines, inclinedly, thus facilitating the operation of the hip-strap, that is, in usage, generally more or less inclined.

The formation of the frame portion A of one integral casting not only imparts much

strength and solidity thereto, but insures the manufacture thereof at comparatively small expense.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a harness-D, the integral frame A, comprising the vertical bar *a*, horizontal bars *b c*, projecting from its lower portion and connected by a forward vertical cross-bar *d* and forming the horizontal opening 1, the horizontal bar *e*, projecting from the upper portion of the bar *a* diametrically over the bar *b* and forming a horizontal slotway 2, in which is mounted a roller *f*, the cross-bar *i*, projecting laterally from upper portion of bar *a* and lineally opposite the bar *e*, the upward parallel projections *k k'*, rising therefrom and conjointly forming the slotway 3, in which is mounted a transverse roller *l*, the curvilinear bar *o*, extending downward from the bar *i* and terminating at the base of the vertical bar *a* and conjointly creating the vertical opening 4, all combined substantially as described.

2. An integral harness-D frame comprising the vertical bar *a*, horizontal bars *b c*, projecting from its lower portion and connected by a forward vertical cross-bar *d* and creating the horizontal opening 1, the horizontal bar *e*, projecting from the upper portion of the bar *a* directly over the bar *b* and creating a horizontal slotway 2, the cross-bar *i*, projecting laterally from the upper portion of the bar *a* and longitudinally opposite the bar *e*, the upward parallel projections *k k'*, rising therefrom and conjointly creating the slotway 3, the curvilinear bar *o*, extending downwardly from the bar *i*, and terminating at the base of vertical bar *a* and conjointly creating the vertical opening 4, all combined substantially as described.

In witness whereof I have hereunto set my hand and seal this 25th day of February, 1889.

JOHN R. KENNETT. [L. S.]

In presence of—
WM. C. RAYMOND,
E. P. REED.