

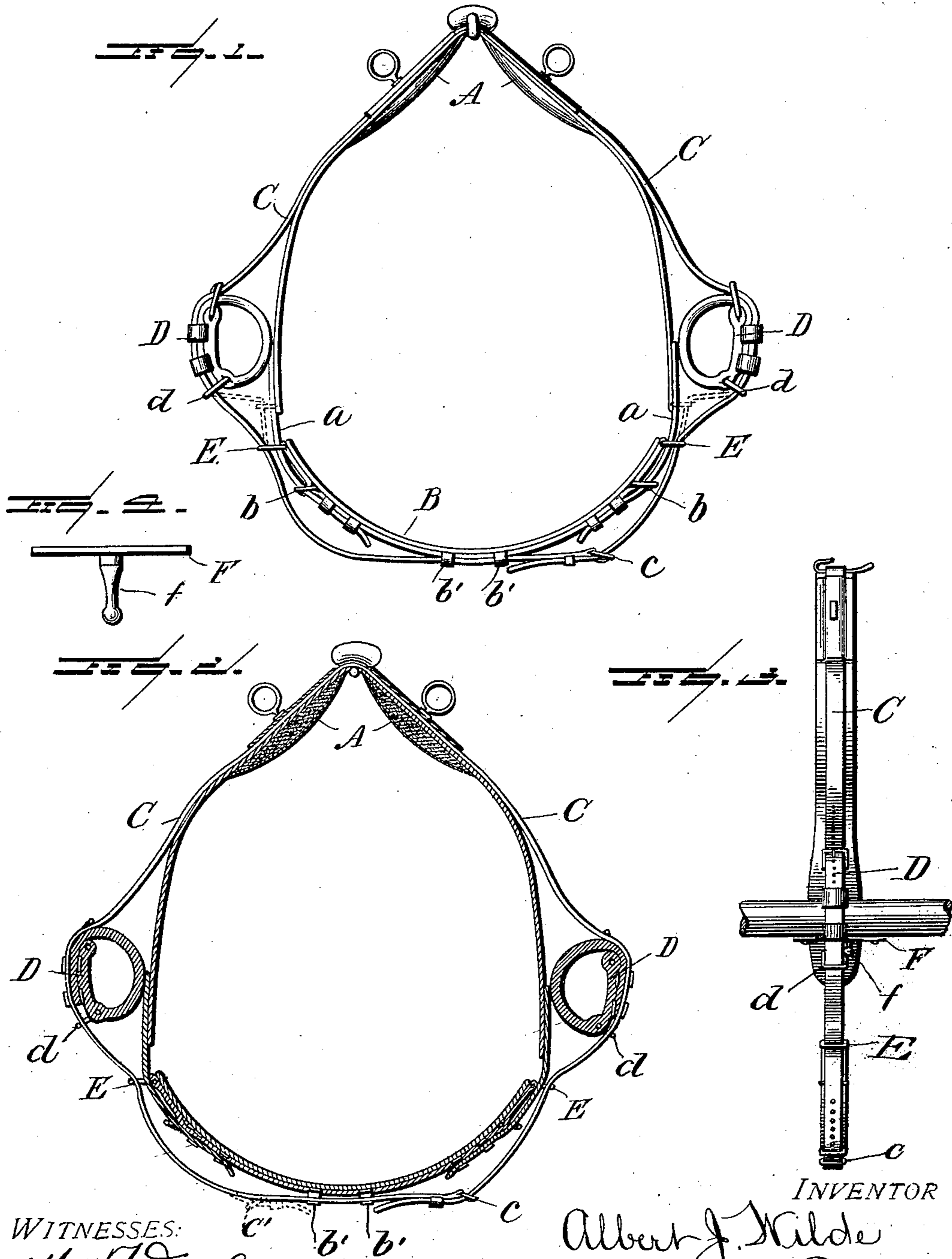
**No. 689,268.**

**Patented Dec. 17, 1901.**

**A. J. WILDE.  
HARNESS.**

(Application filed Mar. 20, 1901.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALBERT J. WILDE, OF JOHNSTOWN, NEW YORK.

## HARNESS.

SPECIFICATION forming part of Letters Patent No. 689,268, dated December 17, 1901.

Application filed March 20, 1901. Serial No. 52,023. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT J. WILDE, a citizen of the United States, residing at Johnstown, in the county of Fulton and State of New York, have invented certain new and useful Improvements in Harness; 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 is an improvement in harness; and it consists in the novel features hereinafter described, reference being had to the accompanying drawings, which illustrate one form in which I have contemplated embodying my invention, and said invention is fully disclosed in the following description and claims.

Referring to the drawings, Figure 1 represents in elevation a harness-saddle provided with my invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a side view of the same. Fig. 4 is a detail view of the tug-stop and attaching-plate with which the thrills are provided.

In the drawings, A represents the saddle proper, provided with the billets *a a*, to which the belly-band B is secured in the usual manner by means of buckles *b b*, attached to the belly-band.

C represents a continuous strap, which I term the "backing-strap" and which passes loosely through the saddletree, so that it may be moved freely, as shown in Fig. 2. At each side a thill-tug D is secured to the backing-strap C, as shown, each thill-tug being provided at its lower end with a retaining-loop *d*, preferably of metal, through which the backing-strap C is passed.

E E represent retaining-loops which are preferably of metal and are attached to the belly-band, as shown in full lines, or to the billets *a a*, as indicated in dotted lines, in which case they are indirectly connected with the belly-band when the harness is in use. The backing-strap is passed loosely through these retaining-loops E E and has its ends connected by a buckle *c*. I also prefer to provide guide-loops *b' b'* (preferably of leather) on the central part of the belly-band, through which the backing-strap passes; but these are not essential. In the drawings I

have shown the backing-strap as a continuous integral strap; but I may, if desired, make it in two pieces and provide a buckle *c'* at the opposite side from the buckle *c*, as shown in dotted lines in Fig. 2; but in either case the backing-strap will be a continuous strap entirely encircling the body of the horse and free from any positive connection with the saddle or belly-band, while it is movably connected to the saddle and to the belly-band by the retaining-loops E E.

The thills with which this harness is to be used will be provided with tug-stops, one of which is shown in Fig. 3 and in detail, Fig. 4.

F represents a plate secured to the thill and provided with a depending tug-stop *f* to engage the thill-tug D.

In operation the thills are inserted in the tugs D D and moved forward until the stops *f* engage the tugs, when the traces (not shown) are secured to maintain the vehicle at the proper distance from the horse. No breeching is used with this harness. When the horse is backed or when the weight of the vehicle is thrown forward upon the horse, as in descending grades, the stops *f f* on the shaft will engage the thill-tugs and press them forward, thus causing the backing-strap C to exert a forward strain upon the retaining-loops E and on the saddle, the bulk of the strain being borne by said retaining-loops. This throws the whole forward strain upon the inner part of the harness, comprising the saddle and belly-band, and enables the horse to easily control the vehicle either in backing or on a downgrade. The retaining-loops E must be located upon the said inner part of the harness and at a point thereon slightly below the thill-tugs or thills; but it is immaterial whether they are attached to the belly-band or to the billets of the saddle. It will be seen that if these retaining-loops E were not employed the backing-strap would be loose from the saddle to the bottom or center of the belly-band and the horse would in such case have no control of the vehicle; but by employing these retaining-loops the pushing force of the shafts is taken by said loops and transmitted directly to the inner part of the harness, which is closely buckled about the horse's girth. It has been found that with this construction the vehicle is perfectly un-

der the control of the horse on the steepest grades and in backing.

I am aware that it is not new to provide a strap carrying the thill-tugs which is movable through the saddle, and this construction I do not claim.

What I do claim, and desire to secure by Letters Patent, is—

1. In a harness, the combination with the saddle, and belly-band provided with a retaining-loop below the level of the thill-tugs, a thill-supporting and backing strap connected with the saddle, passing loosely through said retaining-loop and being connected with the belly-band below said loop, said strap being provided with a thill-tug adapted to be engaged by projecting devices on the thill, in backing or holding back, thereby transmitting the forward pressure of the thills to said retaining-loop and dispensing with a breeching, substantially as described.

2. In a harness, the combination with the saddle and belly-band, provided with a retaining-loop on each side of the harness below the level of the thill-tugs, a thill-supporting and backing strap extending on both sides of the harness and loosely engaging the saddle, having depending portions passing loosely through said retaining-loops, and secured to the belly-band below said loops, said depending portions of said strap being provided with thill-tugs adapted to be engaged by projecting devices on the thills in backing or holding back, thereby transmitting the forward pressure of the thills to said loops and dispensing with a breeching, substantially as described.

3. In a harness, the combination with the saddle and belly-band provided with a retaining-loop on each side of the harness, located below the level of the thill-tugs, a continuous thill-supporting and backing strap extending entirely around the saddle and belly-band, having its upper portion loosely engaging the saddle, its lower portion loosely engaging the belly-band, and its lateral portions loosely engaging the said loops, thill-tugs secured to the lateral portions of said strap and adapted to be engaged by projecting devices on the

thills, in backing and holding back, thereby transmitting the forward pressure of the thills to said loops, and dispensing with a breeching, substantially as described.

4. In a harness, the combination with the saddle and the belly-band, of retaining-loops secured to said belly-band on opposite sides of the harness below the level of the thill-tugs, a thill-supporting and backing strap having depending portions on opposite sides of the saddle, passing loosely through said retaining-loops and connected to the belly-band below said loops, thill-tugs each having its upper end secured to one of said depending strap portions, and provided at its lower end with a loop through which the said strap loosely passes, said thill-tugs being adapted to be engaged by projecting portions on the thills in backing and holding back thereby transmitting the forward pressure of the thills to the retaining-loops on the belly-band and dispensing with a breeching, substantially as described.

5. In a harness, the combination with the saddle and the belly-band provided on opposite sides of the harness with retaining-loops, of a continuous thill-supporting and backing strap having its upper part passing over the saddle and loosely engaging the same, having its lateral portions passing loosely through the said retaining-loops and its lower portion passing loosely through loops secured to the belly-band, below said retaining-loops, thill-tugs having their upper ends connected to said strap above said retaining-loops and their lower ends provided with loops loosely engaging said backing-strap, said thill-tugs being adapted to be engaged by projecting devices on the thills in backing and holding back thereby transmitting the forward pressure of the thills to said retaining-loops, and dispensing with a breeching, substantially as described.

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

ALBERT J. WILDE.

Witnesses:

HARWOOD DUDLEY,  
JOHN M. RUSSELL.