

A. N. GRAY.

Whiffletree.

No. 6,601.

Patented July 24, 1849.

Fig. 1.

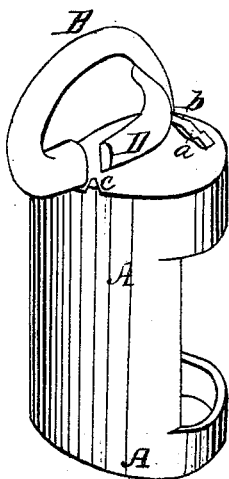


Fig. 3.

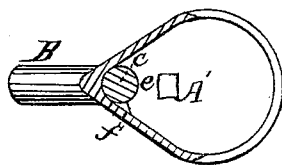
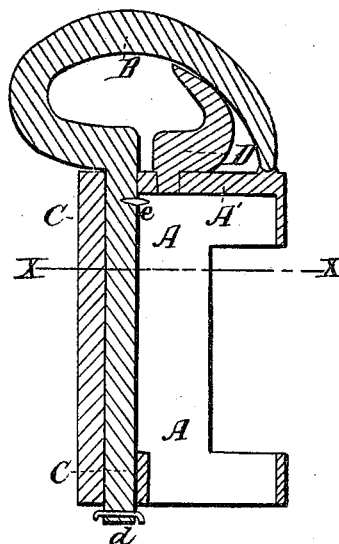


Fig. 2.



UNITED STATES PATENT OFFICE.

A. N. GRAY, OF CLEVELAND, OHIO.

WHIFFLETREE-HOOK.

Specification of Letters Patent No. 6,601, dated July 24, 1849.

To all whom it may concern:

Be it known that I, A. N. GRAY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in the Manner of Constructing the Hook and Head or Ferrule of the Whiffletree for Carriages of Various Kinds; and I do hereby declare that the following is a full and exact description thereof.

The object of this improvement is to prevent the danger of the escape of the cock-eye, or tug, from the hooked ends of the whiffletree; an accident which is not uncommon in the ordinary manner of constructing those parts. In carrying my plan into operation I form a ferrule which is to receive the end of the whiffletree, for the purpose of securing the hook thereto, which is to receive the cock-eye, or tug of the trace, or harness; said hook being made to swivel, on one side of said ferrule, or turn around, to such extent as is necessary for the conveniently inserting, or removing of the cock-eye, or tug; the hook having, for this purpose, a long shank attached to it, which passes through holes made to receive it, in the ferrule.

In the accompanying drawing Figure 1, is a perspective representation of my improved hook and ferrule. Fig. 2, is a section of it through its center, the hook being represented as when closed. Fig. 3, is a transverse section through the ferrule, in the line *x x*, of Fig. 2. In each of these figures where the same parts occur they are designated by the same letters of reference.

A, A, is the ferrule part, which receives the end of the whiffle-tree.

B, is the main hook, which is made to turn around, or swivel, by means of a shank, or pin C, C, (Fig. 2,) that passes from end to end of the ferrule through holes, or sockets prepared to receive it in one side thereof.

D, is a stationary, auxiliary hook, which is made fast to the solid end of the ferrule; the use of this is to prevent the cock-eye, or tug from running toward the point of the hook B. On the solid end or head, A', of the ferrule, there is a stop, or protuberance, *a*, against which the point of the hook B, rests, when the tug has been secured with-

in it; and at *b*, there is also an inclined protuberance over which the point of the hook B, passes when it is being closed, and which serves to check it, in any tendency to turn back, this latter protuberance being no greater than will admit the iron hook to pass over it by its natural elasticity. There is also a stop, or protuberance at *c*, with which the hook comes into contact when it is opened sufficiently far for to admit, or remove, the tug.

The shank, or pin C, C, is riveted over at its end *d*, and to render it more secure it has a protuberance at *e*, (Fig. 2,) which bears against the solid head A', of the ferrule. In order to insert the shank C, in the first instance, there may be an opening, as at *f*, through the head A', to allow the protuberance *e*, to pass in, when the hook B, is in the position occupied by it when opened out. By the curve given to the hook B, the draft will be wholly on one side of the shank, or center of motion, and this itself will tend to hold the hook in the proper position, and prevent its turning, independently of the above named protuberances, which would, of themselves, also serve to secure it in place. It is confidently believed, therefore, that the tug cannot, in any case, escape from the hook while the carriage is in motion, thus affording that perfect security in this particular which it is the sole object of the improvement to obtain.

Having thus fully described the manner in which I construct my improved hook, and head, or ferrule, for the whiffle-trees of carriages, what I claim therein as new and desire to secure by Letters Patent, is—

The manner herein set forth of combining the hook with the ferrule, so as to admit the former to turn around in the latter, when the cock-eye, or tug, is to be inserted, or removed; the respective stops, and the auxiliary hook being arranged substantially in the manner herein set forth, so as to prevent the accidental escape of the tug from the hook.

A. N. GRAY.

Witnesses:

SAML. STARKWEATHER,
LEVI LAHURON.