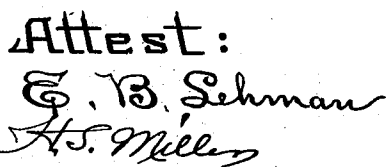


J. KIRBY, Jr.
BRAKE HANDLE.

Patented Nov. 7, 1893.



Inventor.
John Kirby Jr

UNITED STATES PATENT OFFICE.

JOHN KIRBY, JR., OF DAYTON, OHIO, ASSIGNOR TO THE DAYTON
MANUFACTURING COMPANY, OF SAME PLACE.

BRAKE-HANDLE.

SPECIFICATION forming part of Letters Patent No. 508,025, dated November 7, 1893.

Application filed September 4, 1893. Serial No. 484,719. (No model.)

To all whom it may concern:

Be it known that I, JOHN KIRBY, Jr., a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Brake-Handles, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in car brake-handles, and more particularly to that class where the handle when turned in one direction rotates the brake-shaft, and when turned in an opposite direction will move independent of the brake-shaft.

The object of the invention is to produce a brake-handle with mechanism so arranged and disposed within the said handle as to form a reliable means of applying brakes to car wheels and which shall be simple of construction, durable in use, and comparatively inexpensive of production.

With these objects in view the invention consists broadly of a base adapted to be mounted upon the brake-shaft and provided with a series of inclines, a slotted carrier in connection with said base, rollers or balls movable in the slots and adapted to engage with shoulders of the inclines, a handle and casing adapted to inclose and retain the various parts in place.

The invention further consists in the various novel details of construction, hereinafter fully described in the specification, illustrated in the drawings and more particularly pointed out in the claims.

In the accompanying drawings forming part of the specification, and in which like letters of reference indicate corresponding parts, I have illustrated one form of brake-handle embodying the essential features of my invention, although the same may be carried into effect in other ways without in the least departing from the spirit thereof, and in these drawings—

Figure 1 is a broken perspective view of my improved brake-handle showing the relative arrangement and position of the different parts. Fig. 2 is a cross section of the same taken on the line 1 and 2, and Fig. 3 is a cross section at 3 and 4.

Referring to the drawings A is the brake-

shaft, the lower portion of which is secured in any suitable manner to the car platform. The upper portion of said shaft is provided with an enlarged flanged shaped head, B, which forms a base for the handle, preferably screwed to the brake-shaft, and having inclines C, projecting above its top surface.

D is a revolving carrier on which is formed a downwardly projecting shaft E, having a circumferential groove F, and in which slots G, inclined as shown by dotted lines in Fig. 1, are formed, which slots are intended to receive loose rollers H. The upper side of the carrier D is provided with a post I, preferably screwed into a handle J, the lower end of which is made in the form of a casing K, which incloses the working parts of the brake-handle. The handle is retained in place by means of screws or pins L, which pass through flanged piece B, and fit into groove F. Thus the handle and carrier will be allowed to rotate freely yet cannot be removed from the brake-shaft without first removing the screws or pins L.

In operation when the handle is turned in one direction the inclines compel the rollers to travel in slots G toward the center until they pass the ends of the inclines when they will roll behind shoulders M, in which position if the handle be reversed the brake-shaft will be rotated and the brake chain wound upon it in the usual manner.

I have shown three sets of slots and rollers and six inclines, the rollers being so located with relation to the inclines as to enable the brakeman to take a fresh grip at every eighteenth of a revolution of the handle, which arrangement I consider best adapted to the purpose, although a greater or less number of rollers and inclines may be employed.

Having thus fully described my invention, I claim—

1. In a brake-handle a base adapted to be mounted upon a brake-shaft, a roller carrier arranged in juxtaposition to said base one or more rollers movable in said carrier, inclines over which said rollers travel when the handle is moved in one direction and behind which said rollers engage when the handle is moved in an opposite direction, whereby said handle when turned in one direction will rotate the brake-shaft and when turned in an

opposite direction will rotate independently of the latter.

2. In a brake-handle in combination, a base forming a head for the brake-shaft, a roller
5 carrier arranged in juxtaposition to said base, one or more rollers movable in said carrier, inclines over which said rollers travel when the handle is moved in one direction and behind which said rollers engage when the handle
10 is moved in an opposite direction, whereby

the handle when turned in one direction will rotate the brake-shaft and when turned in an opposite direction will rotate independently of the latter, a casing for inclosing said carrier, rollers and inclines, and a handle for operating the whole substantially as set forth. 15

JOHN KIRBY, JR.

Witnesses:

CHAS. V. HUNSAKER,
C. U. RAYMOND.