

(No Model.)

H. E. COLLETT.
CAR BRAKE.

No. 513,670.

Patented Jan. 30, 1894.

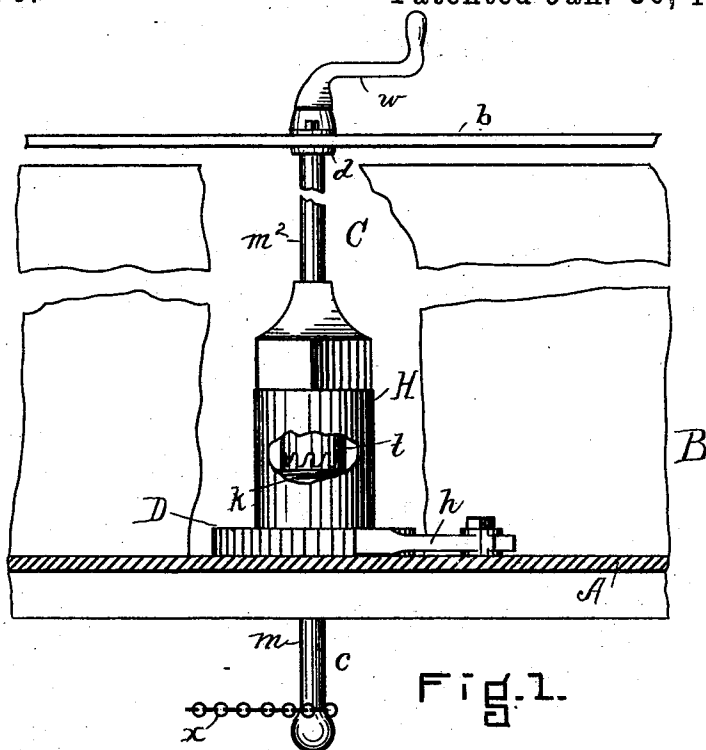


Fig. 1.

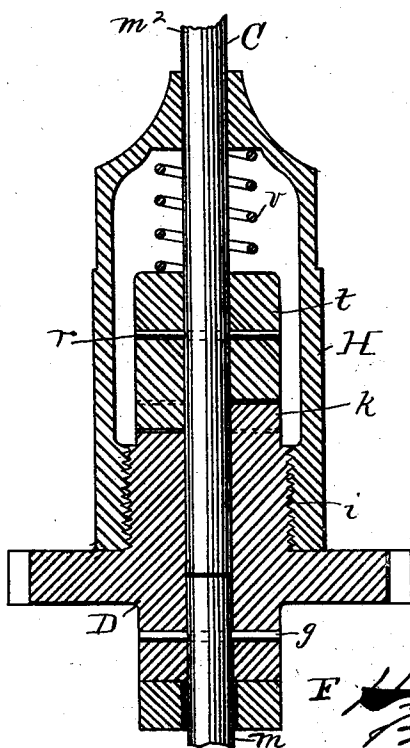


Fig. 2.

WITNESSES.

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HERBERT E. COLLETT, OF CHELSEA, MASSACHUSETTS, ASSIGNOR OF THREE-FOURTHS TO HERBERT E. COLLETT, JR., OF LYNN, MASSACHUSETTS, AND CHARLES W. ARMSTRONG AND JAMES HOWARD BING, OF PHILADELPHIA, PENNSYLVANIA.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 513,670, dated January 30, 1894.

Application filed July 24, 1893. Serial No. 481,262. (No model.)

To all whom it may concern:

Be it known that I, HERBERT E. COLLETT, of Chelsea, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Car-Brakes, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional view of a portion of a street-car platform showing my improved mechanism, the dasher and brake-rod being represented as broken away; and Fig. 2 a vertical transverse section enlarged taken through the clutch mechanism.

Like letters of reference indicate corresponding parts in both figures of the drawings.

My invention relates to street-car brakes, it being designed especially to overcome the necessity of employing the changeable brake-handles ordinarily used. Such handles are designed to facilitate adjusting the relative position of the handle on the brake-rod or staff as the load on the car varies. A clutch or ratchet mechanism connects the handle and staff and is concealed in the handle, socketed to receive it. This construction is expensive, the handles are not interchangeable and the staffs have to be fitted to mount the clutch.

My invention enables the common interchangeable handle now in use to be employed and does not require any special fitting of the staff to receive the clutch while effecting the results desired.

In the drawings, A represents the car platform and B the dasher provided at its top with the rail, *b*. The brake rod or staff, C, is journaled in brackets, *d, f*, on this rail and the platform in the usual manner. In my improvement the staff is divided into two sections or members, *m, m'*. The ordinary ratchet, D, is secured by a pin, *g*, passing through its hub to the upper end of the staff-section, *m*, in which position it overlaps the platform, A, and is engaged by the foot-dog, *h*, pivoted on said platform. The companion staff-section, *m'*, steps on the section, *m*, and is fitted to rotate and slide vertically in the ratchet-

hub and the bracket, *d*. The upper end of the ratchet hub is exteriorly screw-threaded at, *i*, to receive an interiorly threaded cap, H, through the apex of which the staff-section, *m'*, passes. The end of the hub within the cap is toothed at, *k*, forming one member of the clutch mechanism. The companion member consists of a sleeve, *t*, toothed to engage the member, *k*, and secured to the staff-section, *m'*, by a pin, *r*. A coiled spring, *v*, is interposed around the staff-section, *m*, between the top of the cap chamber and the clutch-member, *t*. Said spring acts expansively to hold the clutch-members in engagement. The crank-handle, *w*, is mounted on the squared end of the staff in the usual manner. The chain, *x*, winds on the lower end of the staff-member, *m*.

In use the handle is manipulated in the ordinary way in setting the brake, the spring clutch-mechanism locking the staff-sections when rotated in one direction. The brake being set the staff is held by the dog, *h*, and ratchet, *d*. The handle can be reciprocated, the clutch-member, *t*, riding the teeth of its companion member and the staff-section, *m'*, being carried vertically therewith against the force of the spring, *v*. This enables the relative position of the handle to be changed as the load varies. By inclosing the clutch-mechanism in the cap, H, it is protected from dirt or grit. When the ratchet is released from the dog the staff will rotate returning to its normal position in the manner of the staffs in ordinary use.

By employing my improved device I am enabled to utilize the common handle, it being necessary only to divide the staff into the sections described and prepare the ratchet to form a member of the clutch.

It will be understood that a hand-wheel or other means may be substituted for the handle, *w*, to rotate the staff.

Having thus explained my invention, what I claim is—

1. In a car-brake, the combination of a sectional brake staff, a clutch-member fast to the lower section thereof, and a spring-pushed companion-member fast to the upper section of said staff, substantially as described.

2. In a car-brake the combination of a brake-staff formed of two independent sections in alignment; a clutch-member fast to the lower staff section; a companion clutch-member
5 fast to the upper section and a push-spring interposed between said upper clutch-member and a connection with said lower member.

3. In a car-brake the sectional rotary brake-staff in combination with the ratchet fast to
10 the lower section thereof and toothed to form a clutch-member; a companion clutch-member fast to the upper section of said staff, a cap inclosing said clutch-mechanism and attached to said ratchet and a push-spring interposed
15 between said cap and the upper-clutch member.

4. In a car-brake a rotary-staff divided into two independent sections; a clutch fast to the lower section and inclosing the joint of said
20 staff and a spring-pushed clutch-member fast to the upper staff-section, substantially as described.

5. In a car-brake the combination of the sectional staff with the ratchet and dog, said
25 ratchet being fast to the lower staff-section and having its hub toothed to form a clutch-member; a companion clutch-member fast to the upper staff section and a push-spring interposed between said upper clutch-member
30 and a projection held by said ratchet.

6. In a car-brake mechanism, the combina-

tion with the rotary staff journaled on the car-platform and provided with a ratchet, of a dog on the platform for engaging said ratchet; clutch teeth on the hub of said ratchet, a
35 staff-section fitted to rotate and slide in said hub; a handle on said section; a clutch-member on said section engaging the ratchet-clutch; a cap, turned onto said hub and inclosing said clutch-mechanism and a push-
40 spring interposed between the clutch-member on said staff-section and said cap.

7. In a car-brake mechanism the combination of the sectional staff, C, with the ratchet, d, fast to one member thereof and having the
45 threaded hub, i, provided with clutch-teeth, k; a dog on the car for engaging said ratchet; the clutch-member, t, fast to the opposite staff-section; the cap, H, turned onto said threaded hub and inclosing said clutch-mech-
50 anism and the push-spring, v, interposed between the clutch-member, t, and said cap.

8. In a brake mechanism of the class described a rotary staff formed in two sections and a clutch-mechanism connecting said sec-
55 tions whereby one section may be reciprocated independent of its companion.

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Witnesses:

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