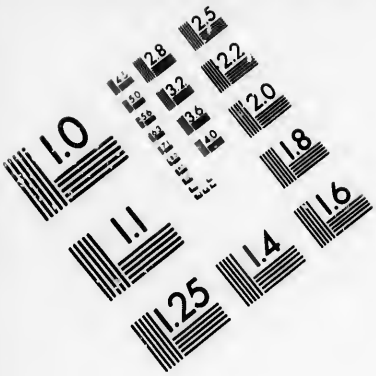

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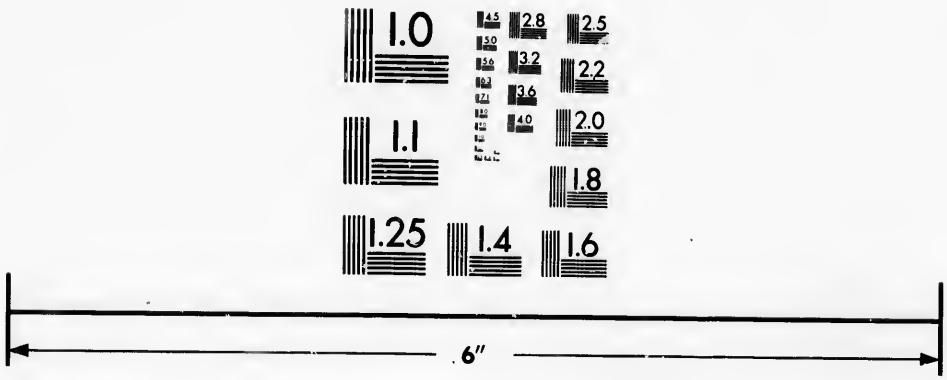

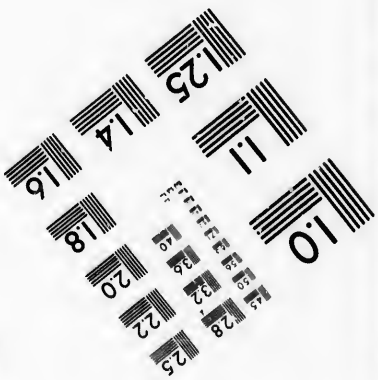

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FROM THE

Railway Safety Appliance Co.

(LIMITED)

OF CANADA.

THE COOKE

PATENT

ALL-RAIL

SAFETY SWITCH

THE BAKER

PATENT

Automatic Safety

SWITCH STAND

HERALD PRINT, MONTREAL.

WE NOW HAVE

ABSOLUTE SAFETY FROM ACCIDENTS

CAUSED BY

Misplaced Switches and Broken Switch Rods.

THE COOKE PATENT ALL RAIL SAFETY SWITCH,

Now in use on upwards of fifty railways in the United States, recommended by several of the State Railway Commissioners, and adopted by the Canadian Pacific Railway Co. for its Entire System in the Dominion, and

THE BAKER PATENT AUTOMATIC SAFETY SWITCH STAND,

in use on the Canadian Pacific Railway, have been combined for their introduction on the Railways of the Dominion, and will be introduced by the Railway Safety Appliance Co. (Limited), of Canada.

THE COOKE SWITCH has been improved by practical observations made from its operation in the Track, and is now the **most perfect safety switch in use.**

THE BAKER AUTOMATIC SAFETY STAND is self-locking and provided with an Extra (Safety) Bar that will hold the switch in the desired position, although the connecting rod may be broken by lateral pressure from a passing train. (In fact, by the use of this additional safety rod, it would be **impossible for a connecting rod to break**, and it thus prevents this class of accidents, which are quite frequent.

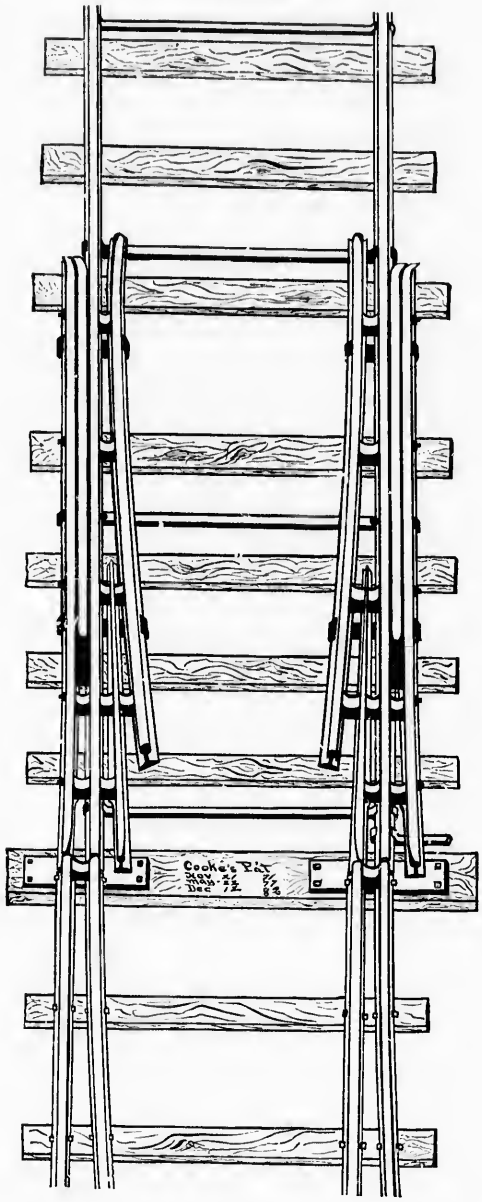
The combination of these two valuable safety devices forms the most practical Track Safety known, and at the same time are simple and cheap to construct and maintain. Appended are the names of various Railways using the Safety Appliances, also copy of Resolutions of Railway Commissioners, with descriptions and cuts of the two devices. For details, address

Secretary,
Railway Safety Appliance Co., Limited,
UNION CHAMBERS,
P. O. BOX 335,
OTTAWA,
ONT.

C. L. COOKE,
General Agent,
UNITED STATES AND CANADA,
SYRACUSE, N. Y.

COOKE'S PAT. ALL-RAIL SAFETY SWITCH.

PATENTED IN U.S.A. - - - - - December 12th, 1882, - - - - - No. 269,016.
PATENTED IN CANADA, - - - - - April 24th, 1883 - - - - - - - " 16,756.



First—The Switch is Absolutely Safe.
Second—Is the Cheapest to Put Down.
Third—Is the Cheapest to Maintain.

The following are some of the advantages peculiar to this improvement:

1. It can be constructed entirely of parts of old rails at your shops, saving cost of transportation.
2. The safety rail sections form no part of the main track, and *come in service only* when switch is misplaced.
3. IT CANNOT BE BLOCKED BY SNOW OR ICE.
4. It operates with absolute certainty.
5. The section rails are so combined, there is no concentrated lateral pressure, but the strain is distributed equally over different parts, thereby causing no wear and tear to wheels or switch.

The following is a copy of a Resolution of the RAILROAD COMMISSIONERS OF MASSACHUSETTS, after full trial of the Switch on the Old Colony Railroad:

Commonwealth of Massachusetts.

BOARD OF RAILROAD COMMISSIONERS.
7 Pemberton Square.

BOSTON, June 22, 1882.

At a meeting of the board of Railroad Commissioners, held this day, it was—

VOTED, That the Switch known as the "Cooke All-Rail Safety Switch," be and hereby is approved by the Railroads of Massachusetts.

Attest:

WM. A. CROFTS,
Clerk.

N. B.—The Cooke Safety Switch is now being used on the State Road (Troy & Greenfield), a license to make and use having been purchased by the Commonwealth of Massachusetts by its General Manager.

"THE NEW YORK CENTRAL & HUDSON RIVER RAILROAD,
"GENERAL SUPERINTENDENT'S OFFICE.

"The New York Central & Hudson River Railroad Company have now in use upon their main-lines the Switch known "as 'Cooke's Patent Safety Switch,' and regard it as the best Safety Switch known. In no instance has it failed, even when "misplaced, to carry the train safely over. Its simplicity of construction and economy in cost, the readiness with which it is repaired "and the certainty with which it operates, all combine to make its use highly profitable.

"(Signed), J. TILLINGHAST,
"*General Superintendent.*"

CANADIAN PACIFIC RAILWAY COMPANY,
GENERAL SUPERINTENDENT'S OFFICE (EASTERN DIVISION),
MONTREAL, *May 30th*, 1884.

C. L. COOKE, Montreal.

DEAR SIR,

Since this Company purchased the right to use and manufacture your Safety Switch, it has been subjected to further tests, and I am glad say that with the Switch misplaced in no case have we succeeded in derailing either cars or engines, at speed varying from ten to thirty miles an hour. We are placing it on all main-line switches as rapidly as we can manufacture; and, personally, I consider it the most valuable safety appliance I have seen.

Yours truly,

ARCHER BAKER,
General Superintendent.

AWARDED FOR MERIT

AT THE

National Exposition of Railway Appliances,

HELD IN CHICAGO, JUNE 1883.

SILVER MEDAL

FOR

Best Safety Appliance

FOR

RAILWAY SWITCHES.

THE SAFEST,

MOST ECONOMICAL,

CHEAPEST TO MAINTAIN.

General view of Switch and Stand as used on Canadian Pacific Railway.

The following are some of the railways that have adopted and are now negotiating and experimenting with the Cooke Safety Switch:

Buffalo, New York & Philadelphia.
Boston, Concord & Montreal.
Boston & Maine.
Cheshire.
Chicago & Northwestern.
Chicago, Milwaukee & St. Paul.
Cincinnati, Hamilton & Dayton.
Cincinnati, Indianapolis, St. Louis & Chicago.
Chicago, St. Paul, Minnesota & Omaha.
Chicago, Rock Island & Pacific.
Central Vermont.
St. Paul & Duluth.
St. Paul, Minn. & Manitoba.
Washington, Ohio & Western.
Concord Railroad.
Delaware, Lackawanna & Western.
Eastern Railroad.
Passumpsic Railroad.
Fitchburg (Hoosac Tunnel Line.)
Maine Central.
Marietta & Cincinnati.
New York Central & Hudson River.
Northern New Hampshire.
Northern Pacific.
Old Colony.
Chicago & Grand Trunk.
Louisville, New Albany & Chicago.
Providence & Worcester.
Ohio & Mississippi.
Ogdensburgh & Lake Champlain.
Portland & Rochester.
St. Louis & San Francisco.
State Road of Mass. (Troy & Greenfield.)
Troy & Boston.
Utica & Black River.
Wabash, St. Louis & Pacific.
Worcester & Nashua.
Sciota Valley.
Columbus, Hocking Valley & Toledo.
St. John & Maine, } Canada.
Inter-Colonial, }
Canadian Pacific, }

SAFETY SWITCHES.

SWITCH STANDS.

WHICH IS THE SAFEST ?

Referring to the use of Split Switches on various railways of Europe, in a work on railway appliances, John Wolf Barry, Member of the Institution of Civil Engineers, speaks of Split Switches as follows: "In using "all descriptions of switches, care must be taken that the point rails may be as stiff as possible, laterally, and "be well and continuously supported laterally against the stock rail (main rail), otherwise there is danger of "the sideways pressure of the flange of any wheel bending the point rail, and so springing open its extreme "and thin end, in which case a succeeding wheel might strike it and mount the rail, or might pass on the "wrong side of it."

Again he refers to the old style or so-called "stub switch," as follows (the italics are our own): "*The old-fashioned form* of points and crossings *possesses*, however, *an undoubted advantage* as compared with "the thin tongues of the points and crossings now in use, *in that the rails are unweakened.* The objection "to the old form of points lies in the necessity they entail of a discontinuity between the ends of the moveable "and fixed rails; but, *if this objection could be removed* by the joint being properly secured and made as "strong as other joints on the line, *this description of points would be superior to the modern form*, especially "in the case of those facing points over which trains have to travel at high velocities."

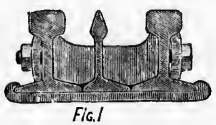


Fig. 1

The Cooke Safety Switch overcomes the objection referred to above, as the short points used are firmly bolted with a spacing-block between the point and main rail and guard-rail. (See Fig. 1.) Under no circumstances can the point move laterally from the main-rail, or a loose wheel take the wrong side of the point.

A more perfect joint is secured by putting the switch down without a cast chair,

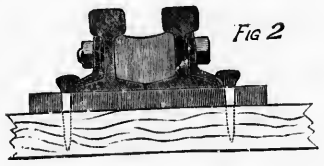


Fig 2

A spacing block is used between the ends of the fixed rails, with fish plates on their outer sides, secured with a bolt and lock-nut; the whole resting on a plate of wrought-iron, and spiked to the head-block. (See Fig. 2.) In using split-switches, a stone or snow getting between the point and main-rails will not let the point come to its proper place, and it may show an all-right signal. The engineer is deceived, and cannot avert the splitting of his train.

In the Cooke-Switch, the section or safety rail form no part of the main track, and, not being in constant use, are rusty or black, while the two main rails are polished from constant use. If the switch be misplaced, it shows the broken line, especially at night, as the head-light, reflecting down the polished rails, will show the break and warn the engineer, who can down brakes, but in no event can the wheels leave the rails.

BAKER'S AUTOMATIC SAFETY SWITCH STAND

is of Cast Iron, provided with Semi-cylindrical Column and Steps, to enable the Switchman to light the Lamp, thus doing away with the ladder. It has a radius bar or half circle, which the switchman raises *before he can move the switch*; letting go of this half circle, *the Switch locks itself.*

It is also provided with a Safety Rod, which receives the lateral strain of passing trains, *thereby relieving the Connecting Rod*, and prevents breaking of either rod or crank.

The Stand is very compact and of neat appearance, and can be adapted to yards or main-line equally well. The Stand can be used on single or three-throw switches, without altering the Crank.