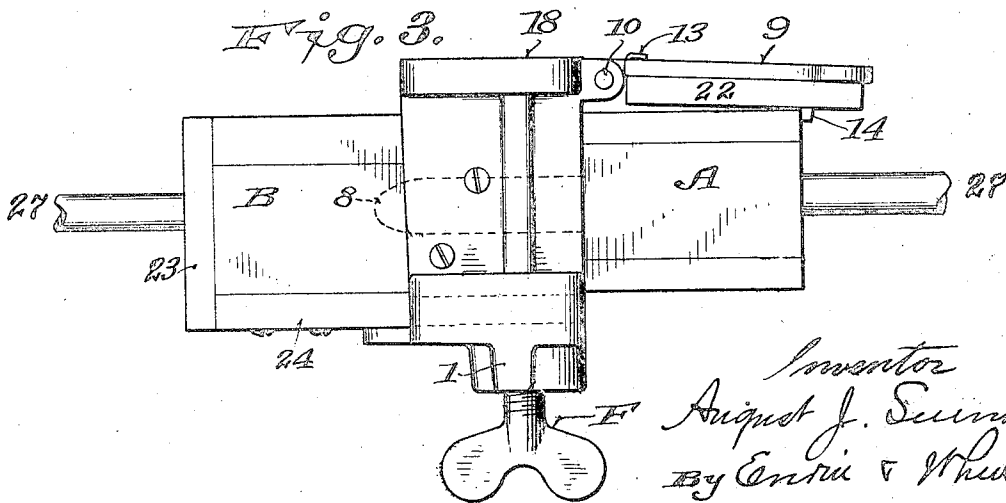
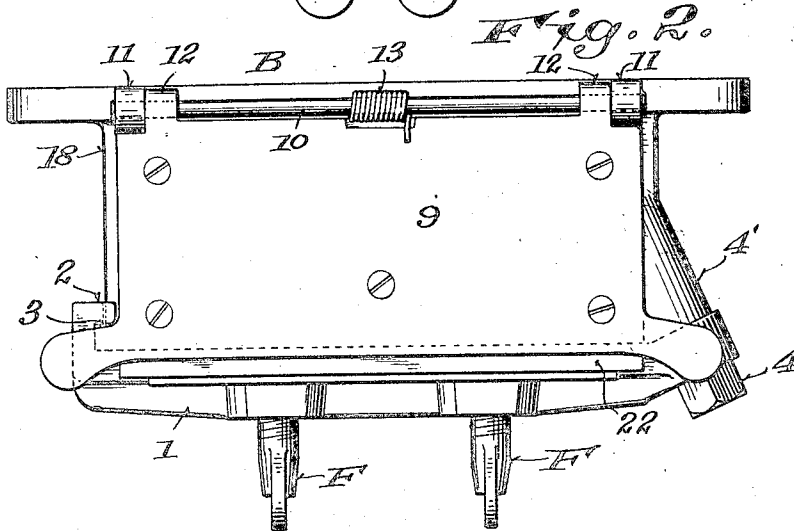
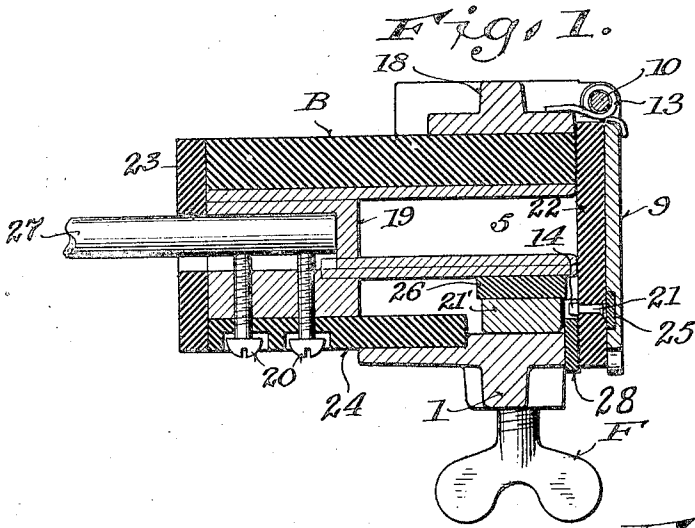


1,209,892.

Patented Dec. 26, 1916.

2 SHEETS—SHEET 1.



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1,209,892.

Fig. 4.

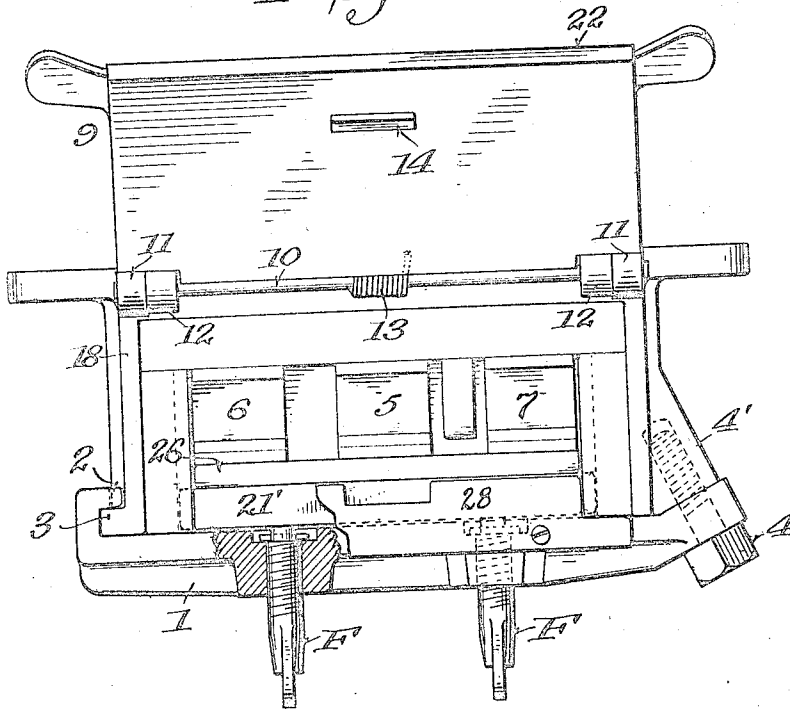
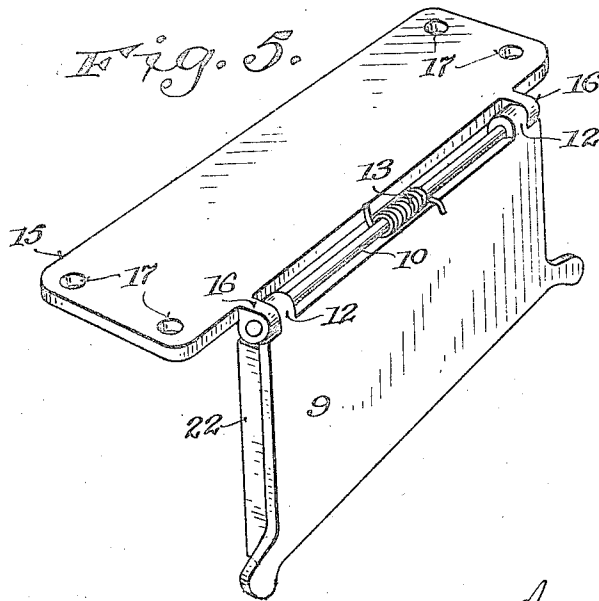


Fig. 5.



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UNITED STATES PATENT OFFICE.

AUGUST J. SEEMANN, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO LOEFFELHOLZ AND COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

ELECTRICAL CONNECTOR.

1,209,892.

Specification of Letters Patent.

Patented Dec. 26, 1916.

Application filed November 22, 1915. Serial No. 62,690.

To all whom it may concern:

Be it known that I, AUGUST J. SEEMANN, a citizen of the United States, residing at the city of Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Electrical Connectors, of which the following is a specification.

My invention relates to improvements in electric connectors for connecting the railway cars of a train, and it pertains to that class shown and described in Letters Patent No. 468,654, issued to G. Gibbs Feb. 9, 1892, and also shown in Patent No. 1,046,227, issued to myself Dec. 3, 1912. The invention shown in both of said patents, as well as the present application being owned by the same party, both of said patents show the connector comprised of two separate members A and B slidably connected together, as more clearly indicated in Figures 1, 2 and 3 of said patent to Gibbs. It will be understood, however, that when the part A has been withdrawn from the part B, as indicated in Figs. 2 and 3 of said patent to Gibbs the open end of the part B is uncovered, whereby dust, cinders and other refuse material is liable to enter the open spaces in the part B, whereby it becomes difficult to insert the fingers C, C' and C" of the Gibbs patent into the part B.

The object of my present invention is therefore more especially to provide a simple and efficient device for automatically closing the open end of the part B, whereby the dust and other refuse matter is prevented from entering the chambers formed in the part B for the reception of said fingers.

My invention also pertains to the peculiar construction of the yoke surrounding and inclosing said chambers by which the clamping mechanism of the connector are forced more firmly and rigidly into electrical contact with the fingers through which the electric connection is made.

My invention is further explained by reference to the accompanying drawings, in which—

Fig. 1 represents a vertical section of the so-called stationary member of said electrical connector. Fig. 2 represents a front view of the device shown in Fig. 1, showing the door by which dust and other refuse matter are prevented from entering the

chambers of said connector. Fig. 3 is a side view of the device shown in Figs. 1 and 2 in operative connection with the other member of the connector which is slidably retained in place. The door by which dust and other refuse matter is excluded from the chamber of the connector, being shown in its raised or open position. Fig. 4 is a front view of the device shown in Fig. 2, as it appears with the door open, and Fig. 5 is a perspective view showing the door pivotally connected with a plate, which plate is used when attaching the door with connectors which have previously been made.

It will be understood that when the door is used with new made connectors it is pivotally connected with the yoke and a separate plate for connecting said door is dispensed with.

Like parts are identified by the same reference letters and numerals throughout the several views.

The so-called stationary member of my connector is referred to by the reference letter B, and the removable member is referred to by the reference letter A, as shown in said patent of Gibbs. By said patent to Gibbs the so-called yoke is formed of a single piece which entirely surrounds the connector, and the same is provided with a single binding screw F by which the electrical connecting members are brought into electrical contact with each other. Experiments have demonstrated the fact that said yoke often becomes broken when put under excessive strain, and for that reason I have formed the yoke 18 with a separate member 1 which is adapted to be temporarily connected with the member 18 by the retaining lug 2, which is adapted to engage the lug 3 and the opposite end of said member 1 is retained in place by a single bolt 4 having threaded bearings in the sleeve 4', whereby in case said member 1 or said binding screw F or either of said binding screws should become broken the part 1 may be readily removed from the member 18 by withdrawing the screw 4, when the part 1 or the binding screws therein may be readily repaired without removing any of the other parts of the connector.

5, 6 and 7 are chambers formed in the member B for the reception of the fingers 8, indicated by dotted lines in Fig. 3. As heretofore constructed dust and other refuse ma-

terial was adapted to accumulate in said chambers 5, 6 and 7, whereby it became difficult or impossible to insert the fingers 8. By my improvement, however, I have provided the member B with a door 9 which is pivotally connected therewith by a hinge bolt 10, hinge members 11, 11 and 12, 12.

13 is a spiral spring, one end of which bears against the door 9 and the opposite end against the yoke 18. The spring 13 is centrally supported from the hinge bolt 10, as shown in Figs. 1 and 2, whereby said door 9 is normally retained in its closed position, when said members A and B are separated. The door 9 is provided with a downwardly projecting lug 14 which is adapted to engage the front end of the member A, as shown in Fig. 3, whereby said member A is prevented from being accidentally disconnected from the member B. When the door 9 is attached to connectors which have previously been made it is hinged to a separate plate 15, which plate is formed integral with the hinge members 16, and said members 16 are pivotally connected with the door 9 by said hinge members 12 and pivotal bolt 10, as shown in Fig. 5. When the door is thus connected with the plate 15 said plate is thereafter secured to the upper side of the yoke 18 by a plurality of bolts which are inserted through the apertures 17. The door 9, yoke 18, hinge member 11 and 12, spring 13 and the inclosing walls of the chamber 5, member 19, binding screws 20, 20, clamping screw F, bolt 21 and member 21' are preferably formed of metal, while the other coop-

erating elements of the device comprising the parts 22, 23, 24, 25 and 26, 28 and the part B are preferably all formed of fiber or other non-conductor of electricity, whereby the current of electricity which is led from one conductor 27 to another through the connector is so insulated as to prevent it from escaping.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. The combination with the open member of an electric connector of an inclosing yoke provided upon one side with a removable member, a plurality of binding screws having threaded bearings in said removable member, said last named member being adapted in case it or either of said binding screws are broken to be readily removed without disturbing the other parts of said connector.

2. The combination with the open member of an electric connector, of a door, a yoke, a separate plate hinged to said door, means for temporarily connecting said plate to the yoke of said connector, and means for yieldingly retaining said door when closed in its closed position against the open end of said first named member.

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

AUGUST J. SEEMANN.

Witnesses:

JAS. B. ERWIN,
ALICE J. MCKERIHAN.