June 11, 1968 D. E. DAWSON 3,387,714

RETRACTABLE TRAINLINE CONNECTOR DEVICE

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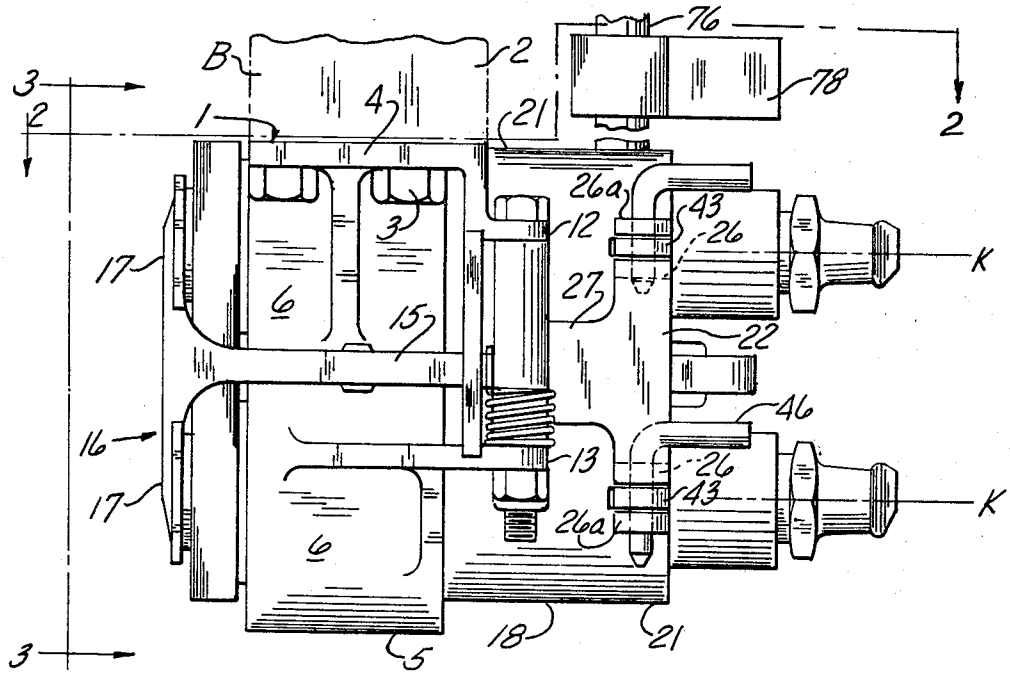


FIG 1

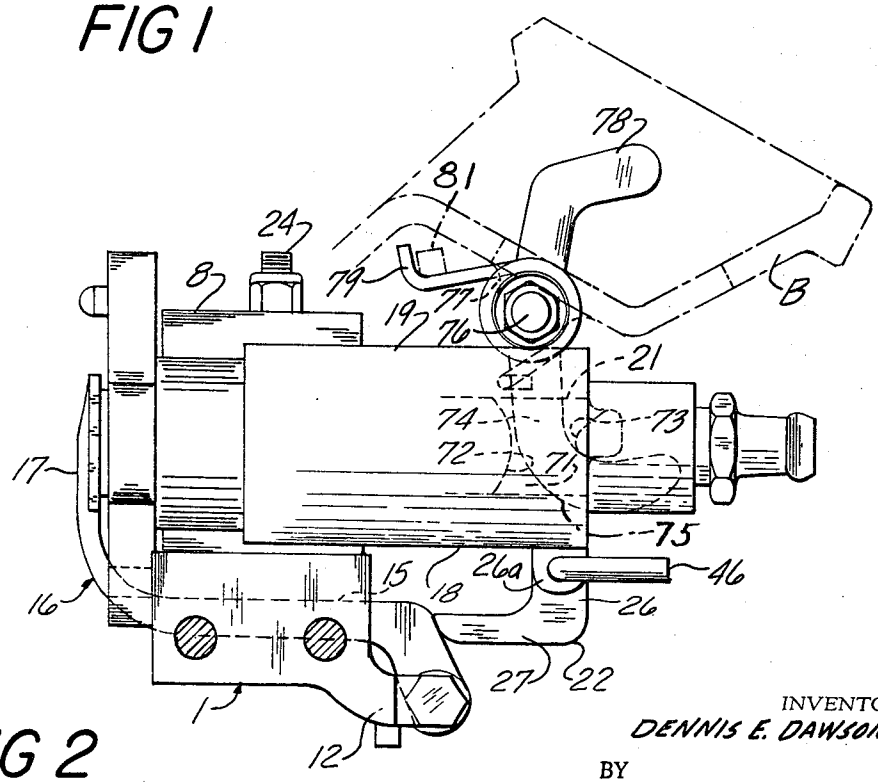


FIG 2

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FIG 3

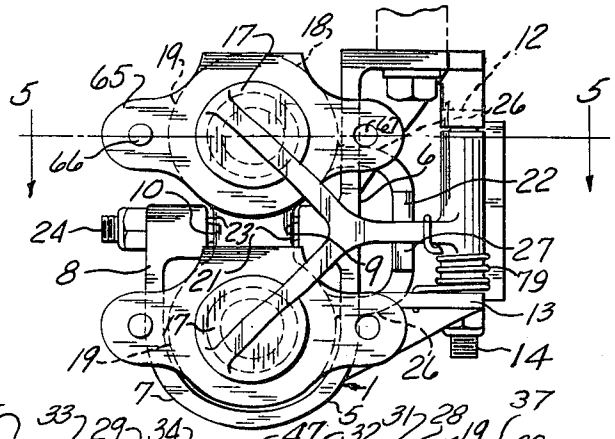


FIG 4

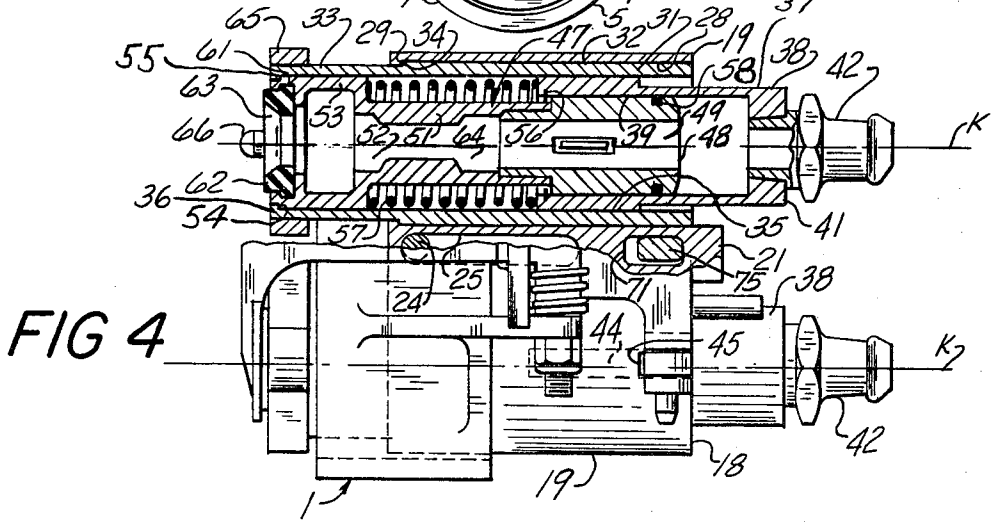
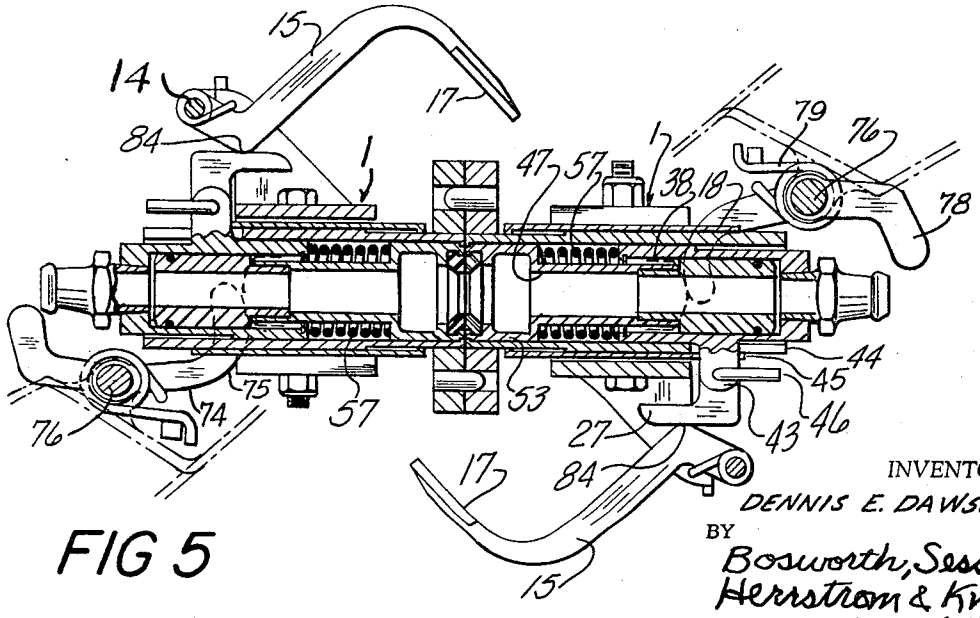


FIG 5



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FIG 6

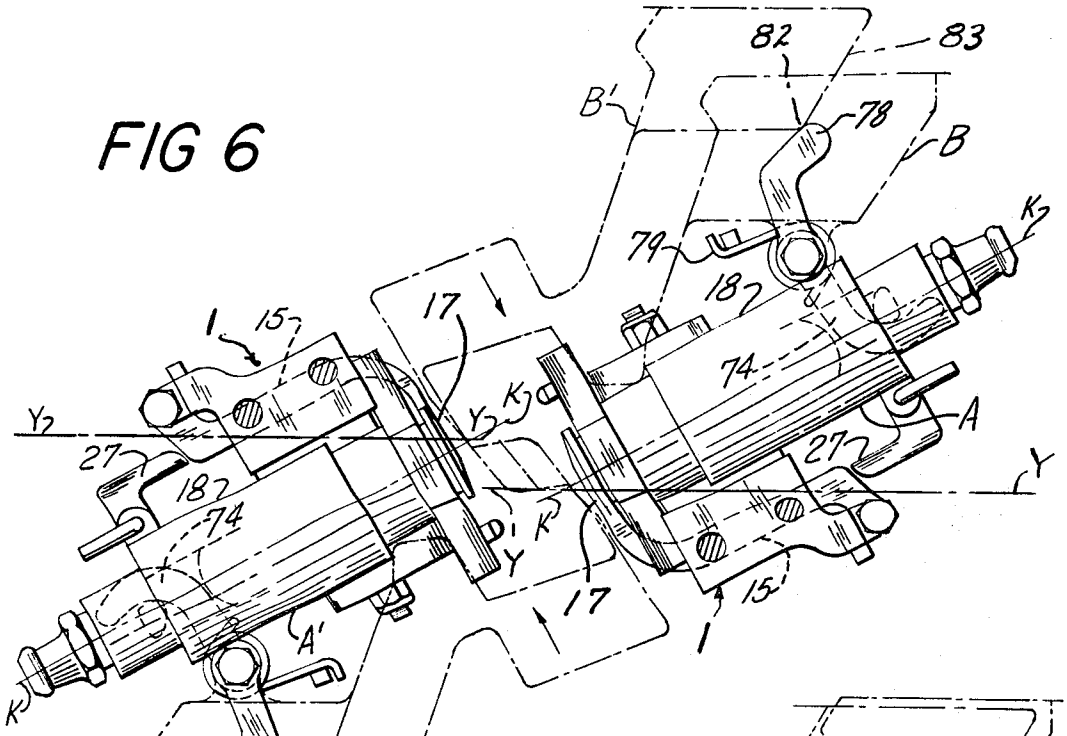
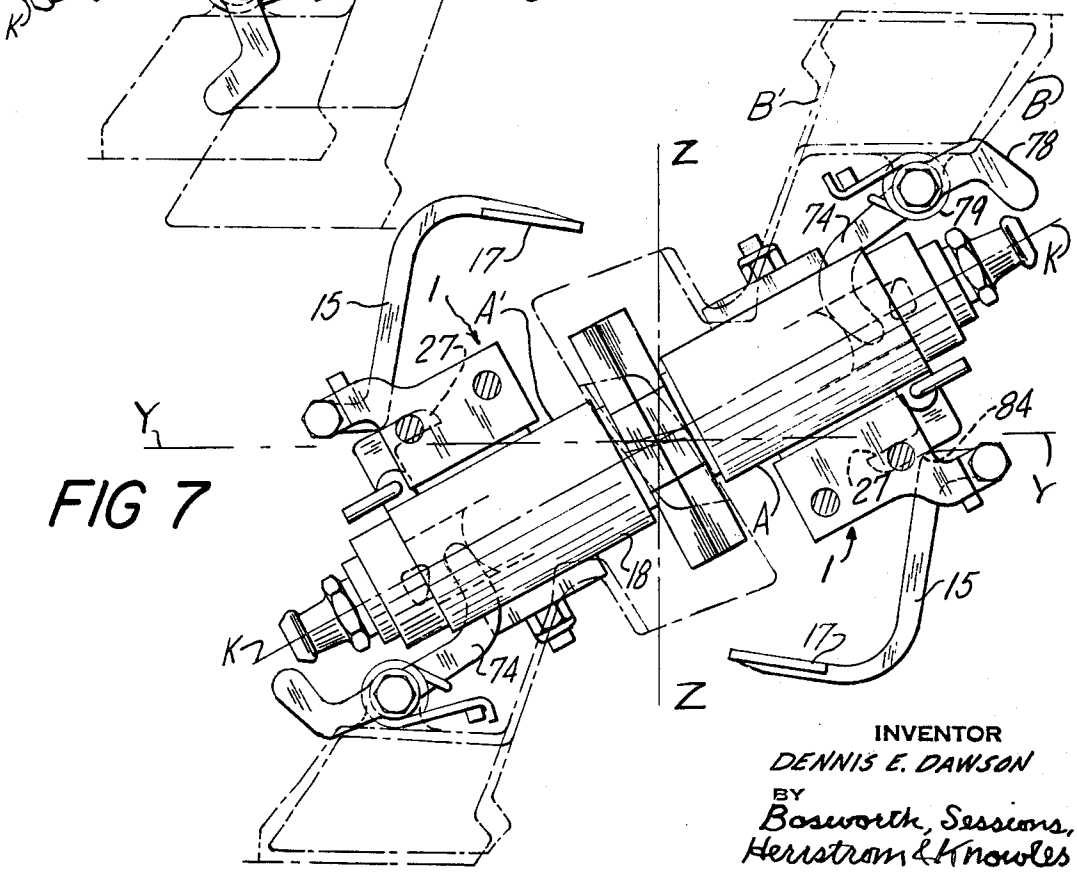


FIG 7



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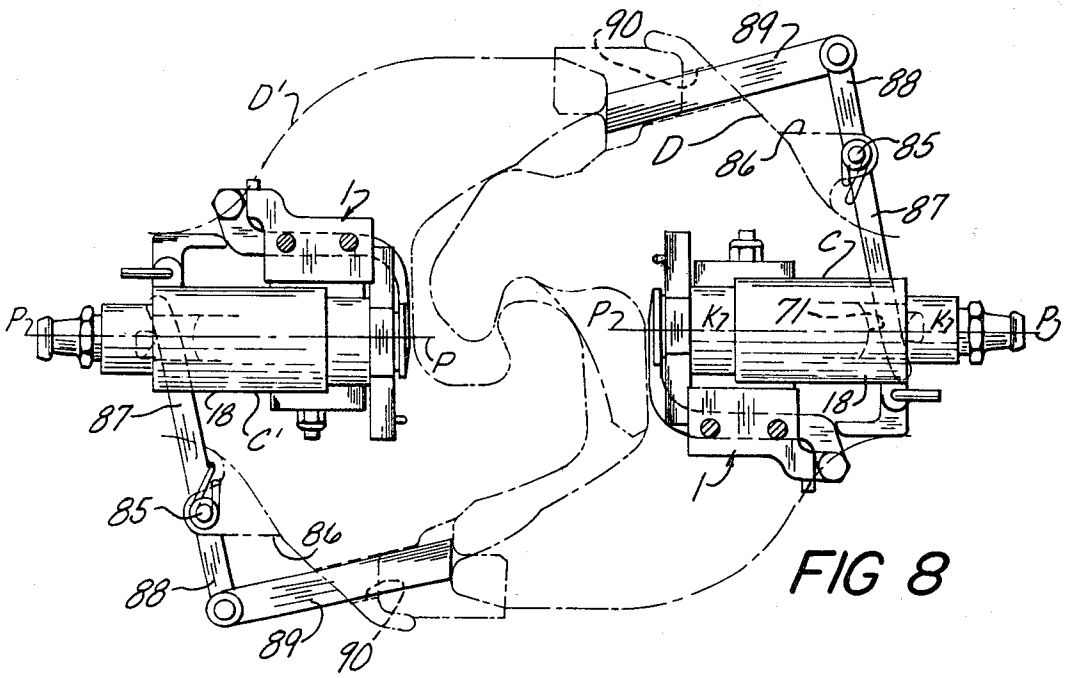


FIG 8

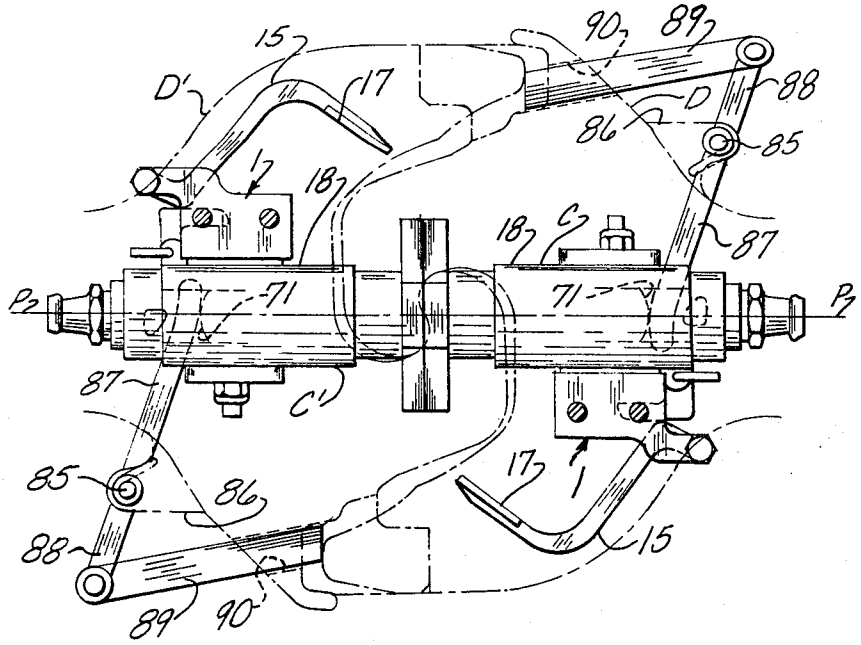


FIG 9

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3,387,714

RETRACTABLE TRAINLINE CONNECTOR DEVICE

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Filed Mar. 14, 1966, Ser. No. 534,005
14 Claims. (Cl. 213—1.3)

ABSTRACT OF THE DISCLOSURE

A trainline connector to be carried on a railway vehicle coupler, comprising movable body means adapted to be held in retracted position relative to the carrying coupler until such coupler moves into coupling engagement with another coupler, after which the body means moves forward into connecting relation, the body means movably supporting trainline terminal means for movement between advanced and retracted positions relative to the body means, the trainline terminal means being biased toward its advanced position; there may be more than one trainline terminal means carried by the body means; and there may be a cover that covers each unconnected trainline terminal means but which automatically opens when the body means moves to its extended connecting position.

This invention relates to means for connecting trainlines, such as fluid-conducting conduits and electrical circuits, between railway vehicles; and more particularly to connectors that make possible the automatic connection of trainlines as identical couplers of vehicles carrying identical connectors are automatically coupled, and that also are adapted to be held in retracted positions on their supporting couplers when such couplers couple with unlike couplers.

When railway vehicles, such as railway cars, are coupled together, it is often necessary to connect together trainlines such as conduits for air or steam, or electrical circuits, carried by the vehicles. The connectors for such purpose should meet several requirements.

Thus, it is desirable that the connectors make it possible automatically to connect together the trainlines on coupling of the cars, and automatically disconnect the trainlines on uncoupling, without utilizing manual action with its attendant high labor costs and possibilities of hazards to personnel. To make this possible the connectors are usually mounted on the couplers that automatically couple. Furthermore, it is important that when such couplers are coupled, the connectors mounted on the couplers maintain proper connections between the trainlines even though the couplers have limited longitudinal, lateral (including vertical), and universal angling movements during operation of the train over the track, as occurs with Willison fixed jaw couplers, or knuckle-type interlocking couplers, commonly used on freight and passenger cars. If the connectors do not maintain such proper connections between the trainline of coupled vehicles during such relative movements of the couplers, there will be severe stresses or wear on the connectors or chaving or breakage of fluid seals and electrical contacts.

The connectors should also form the desired connections between trainlines as the couplers carrying the connectors automatically couple, even though the couplers may move substantial distances transversely to the pulling axis of the couplers during their final coupling movements. Since the most feasible location for a connector on a coupler is below the coupler, it is also important that the connector be compact and located as close to the

coupler as possible so it will not interfere with hoses or other parts of the railway vehicles and so it will not strike parts of the track as the vehicles move along the tracks. The coupler should be rugged in construction, require little maintenance, and be capable of manufacture at reasonable cost.

Additional requirements must be met if the connector is to be mounted on a coupler which is to be coupled with mating couplers of different types. In general, identical connectors, mounted on identical couplers, for automatically connecting on coupling have had slidably-mounted movable connected members that are resiliently urged toward and maintained in normally extended positions until each engages the mating movable connecting member of the mating connector, and both movable connecting members are partially forced rearward toward retracted positions by such mutual engagement. While such connectors have been devised which operate effectively and efficiently when engaging identical connectors mounted on identical couplers, in some services vehicles having automatic connectors mounted on couplers are required to be coupled to other vehicles having different types of couplers that are, however, capable of being coupled to the couplers equipped with connectors. Such different types of couplers often have laterally-extending portions thereof that can engage and damage the normally extended movable connecting members of prior connectors. For such services, it is desirable to have connectors in which the connecting members are normally maintained in positions in which they cannot be damaged by any parts of such different types of couplers.

Furthermore, in many services it is desirable that the terminal portion of the connecting member of each connector that contacts the like portion of a mating connector be protected from dust, dirt, ice or other materials that could impair fluid-tight conduit joints or electrical contacts.

An object of this invention is to provide connector means for automatically effecting satisfactory connections between trainlines on cars or other railway vehicles as they are coupled, which means can satisfy all of the above requirements, or as many of the above requirements as desired.

A further object is the provision of a connector adapted to be mounted on the coupler of a railway vehicle, which connector is capable of automatically connecting to a like connector carried by a like coupler of another vehicle, to connect at least one trainline on each vehicle, without damaging the connectors, even though the couplers make substantial lateral movements as they automatically couple.

Another object is to provide such connectors that maintain effective connections between the trainlines of the vehicles without relative movement of the connecting members of the connected connectors even though there are appreciable lateral, longitudinal and angling movements of the coupled couplers as the vehicles travel.

A further object is the provision of such a connector in which the terminal end of the connecting member that makes contact with a like connecting member on an identical connector is covered with a protective cover at all times except while the connector is connected and during the time it is making or breaking connection.

A further object is the provision of such connectors in which all extensible parts of the connectors are normally held in retracted position on the coupler until the coupler makes its final coupling movements with a like coupler, so that they are maintained in a position where they cannot be damaged if the coupler supporting the connector should be coupled with an unlike coupler that

has laterally-extending parts that could otherwise interfere with the connector.

A further object is the provision of such connectors that are compact and can be attached to existing couplers with little difficulty and little modification of the couplers.

Another object is the provision of connectors of these types which can be manufactured with a minimum of machining and at reasonable cost, and which are durable.

These and other objects will become apparent from the following descriptions of two connectors embodying the invention, in connection with the drawings in which:

FIGURE 1 is a side elevation of one form of connector embodying the invention, this connector being adapted to connect two conduits to two conduits on a like connector, and having means for positively moving the covering of the terminal end of the connector;

FIGURE 2 is a plan of the connector of FIGURE 1 from line 2—2 of FIGURE 1;

FIGURE 3 is an end elevation of the connector of FIGURES 1 and 2, viewed from line 3—3 of FIGURE 1;

FIGURE 4 is a side view of the connector of FIGURES 1–3, parts being broken away to show the internal construction of one of the conduit connection portions;

FIGURE 5 is a sectional elevation to a somewhat smaller scale, showing two identical connectors like that of FIGURES 1–4, connected with their terminal portions forming fluid-tight connections between the conduits in the connectors, the section along each connector corresponding to line 5—5 of FIGURE 3;

FIGURE 6 is a plan to the scale of FIGURE 5 showing two connectors, each of the type of that of FIGURES 1–5, mounted on Willison type couplers, the couplers being shown in broken lines and in their final coupling movements;

FIGURE 7 is a plan, generally corresponding to FIGURE 6 and to the same scale, but showing the two connectors as connected and the two couplers engaged;

FIGURE 8 is a view showing in plan two connectors, each of which is a modified version shown in FIGURES 1–7 but to a smaller scale, mounted on two knuckle-type interlocking couplers, shown in broken lines in their final coupling movement; and

FIGURE 9 is a plan generally corresponding to that of FIGURE 8 but showing the couplers coupled and the connectors connected.

In the apparatus of FIGURES 1–7, the connector A embodying the invention can effect automatic connection between two fluid-containing conduits carried by each of the two coupled cars, and also is maintained normally retracted in a position where it cannot interfere or be damaged by a non-identical coupler that may be coupled to the coupler carrying the connector. This connector A is mounted on a coupler B which is shown as a Willison type coupler, and comprises a bracket 1 that is rigidly fixed to a suitably shaped and bored bottom portion 2 of the coupler B by bolts 3. Bracket 1 is complex in form, comprising an upper fastening portion 4, a downwardly depending stirrup portion 5 that extends downwardly at 6 from portion 4 at one side of the connector, across its bottom at 7 and partially up the other side of the connector at 8. Generally centrally between its upper and lower margins, bracket 1 has two inwardly-facing, parallel, longitudinally-extending guide portions 9 and 10 respectively fixed to portions 6 and 8 of bracket 1 (FIGURE 3). Downward portion 6 also carries spaced rearwardly-extending lugs 12 and 13 which pivotally support without tilting, about the shaft of bolt 14 fixed in the brackets, the forwardly-extending arm 15 of a cover member 16 having two cover portions 17 for protecting the terminal portions of the conduit members to be described later.

Bracket 1 supports a demountable movable body 18 comprising upper and lower generally cylindrical portions 19 (FIGURES 3 and 4) that are rigidly fixed together, as by being cast together, through an intermediate portion 21 and a laterally spaced side portion 22 (FIGURES 1–4). Intermediate portion 21 has parallel sides 23 spaced apart by a width slightly less than the confronting sides of the guide portions 9 and 10 of bracket 1. A bolt 24 is fixed in and extends generally horizontally between guide portions 9 and 10 of bracket 1, through a slot 25 that is somewhat wider than the bolt diameter and that extends longitudinally of body 18. This body is also guided by the interior curved surface of the stirrup portion 5 of the bracket, which provides an opening somewhat larger than the exterior diameter of the lower cylindrical portion 19. Body 18 therefore can move slidably longitudinally relatively to the bracket 1 for a distance limited by bolt 24 in slot 25, while also being permitted slight tilting and lateral movements due to the loose fit of the body relative to bolt 25, between guide portions 9 and 10, and in stirrup portion 5.

Laterally spaced side portion 22 comprises two legs 26 each fixed to the rear portion of body 18 on one of the cylindrical portions 19, and an intermediate portion fixed to the legs and extending forwardly in the shape of a cam portion 27 for reasons to be described.

Body 18 has therein two smoothly finished cylindrical bores 28, the two axes K of which are parallel and lie in a generally vertical plane when the connector is mounted on the coupler. Each bore 28 terminates at the front of body 18 in an inwardly-projecting annular shoulder 29 defining an opening smaller in diameter than the bore 28.

A generally cylindrical tubular member 31 is mounted in each bore 28. This member has a smoothly finished enlarged exterior cylindrical portion 32 that fits in its bore 28, and a smaller cylindrical portion 33 that projects past the shoulder 29; these portions 32 and 33 are separated by an exterior annular shoulder 34 that can engage shoulder 29 and bore 28 to limit forward travel of member 31. Member 31 also has a smoothly finished interior cylindrical bore 35 that terminates at the front of member 31 in inwardly projecting annular shoulder 36. Bore 35 is coaxial with bore 28.

Slidably mounted in tubular member 31 is an assembly 37. This assembly comprises a generally cup-shaped member 38 having a cylindrical exterior surface that slidably fits within bore 35 of member 31, and having an inner bore 39 terminating in a rear wall 41 carrying a fitting 42 adapted to be connected to an air or steam hose. Member 38 has a laterally projecting lug 43 (FIGURE 5) that projects through an elongated slot 44 that extends longitudinally inwardly from the rear of tubular member 31, and through a short slot 45 in the rear of the corresponding cylindrical portion 19 of body 18. Each lug 43 is locked to its adjacent leg 26 and spaced log 26a of movable body 18 by a demountable pin 46, while guiding tubular member against rotational movement as it slides in body 18.

Assembly 37 also includes a piston member 47 slidably mounted in members 31 and 38. Member 47 includes a rear portion 48, with internal passage 49, slidably mounted in bore 39 of member 38 and rigidly fixed, as by threads, to the hollow stem portion 51 of a front portion 52 of piston member 47. Portion 52 at its front end has an enlarged portion 53 slidably mounted in bore 35 of tubular member 31 and provided with a front-facing shoulder 54 adapted to bear against a rear-facing shoulder 55 at the front of bore 35. A stop ring 56, snapped into the inner bore of cup-shaped member 38, limits forward travel of piston member 47 relative to member 38, and a compression type spring 57 around stem 51 operating between the rear of front enlarged portion 53 of piston member 47 and cup-shaped member 38 tends to urge the piston member 47 toward its extreme extended or forward position relative to member 38, as is evident from FIGURE 4. Sealing ring 58, such as an "O" ring,

disposed in a suitable groove in rear portion 48, seals the exterior of portion 48 to the interior bore 39 of member 38.

The front end of piston member 47 has an annular internal recess 61 firmly supporting a resilient gasket ring 62 that protrudes from the front of piston member 47 and from the front of tubular member 31 when all parts are in their extreme forward positions.

Thus, in each cylinder portion of body 18, there is a passage for fluid extending from the opening 63 in the gasket ring through the passages 64 and 49 of piston member 47, to the interior rear portion of cup-shaped member 38 and to the interior of a hose connected to fitting 42.

To the front end of each tubular member 31 there is fixed, as by threading, a flange 65 that extends laterally at each side of the connector to provide on one side a projecting stud 66 with a curved or tapered end and at the other side an opening 67 into which the stud 66 of a connecting connector can be inserted to align the parts during connection of the connectors.

Body 18 also has in its intermediate portion 21 an elongated opening 71 (FIGURES 2, 4 and 5) having a laterally curved cam surface 72 at the end nearest the terminal end of the connector, and another cam surface 73 at the other end of the opening. An arm member 74, having an end 75 suitably curved to fit through opening 71 as the arm swings, is rigidly mounted on a shaft 76 (FIGURES 1, 2, 5–7), that is axially immovably but rotatably mounted in mounting means 77 fixed to the coupler B on which the connector is mounted. The upper portion of shaft 76 rigidly carries an actuating member 78 that can engage and be moved by a like coupler that is being coupled to the coupler carrying the connector. A coil spring 79 surrounding shaft 76 and having one end engaging arm 74 and its other end engaging a bracket 81 on coupler B, biases the arm 74 for movement toward the rear of connector A and the actuating member 78 for movement toward the front of the connector when the couplers are uncoupled, as shown in FIGURE 2.

FIGURES 6 and 7 illustrate the operations of two identical connectors A and A' like that described above during coupling of two identical opposing Willison type couplers B and B', carrying the connectors. FIGURE 6 shows in plan in broken line the couplers B and B', each having mounted beneath it one of the connectors A and A', as the couplers enter their final coupling movements. FIGURE 7 shows the couplers after they are coupled and the connectors have connected. FIGURE 5 is a section through the connectors of FIGURE 7 after they have been coupled. The two axes K—K of the movable body 18 of each coupler lie in an essentially vertical plane (designated K—K in FIGURES 6 and 7) that is disposed angularly to the pulling axis Y—Y of the coupler. Corresponding axes K—K of the two connectors that are to be connected lie essentially in the same horizontal planes that are essentially parallel to the axes Y—Y of the couplers; axes Y—Y of both couplers essentially coincide when the couplers are coupled and under tension.

Each connector, moreover, is so mounted relative to its supporting coupler that the axes K—K of its movable body 18 extend essentially at right angles to the final coupling movement of the couplers, shown by the arrows in FIGURE 6, and at an angle other than a right angle to the coupling plane of each coupler indicated by broken line Z—Z in FIGURE 7. The above described angular disposition of each connector relative to its supporting coupler facilitates automatic engagement and interfitting of connector parts despite substantial lateral movements characteristic of Willison couplers on coupling, and also positions the connector so its movable body is located so that, when retracted, it and all other parts of the connector clear any outwardly-extending portion of a mating but non-identical coupler that may be coupled with the coupler carrying the connector, and essentially all parts are located behind the contour line defined by the coupling face of the associated coupler.

As apparent from FIGURE 6, as the couplers B and B' enter their final coupling movements, the actuating member 78 for each connector first contacts the inside wall 82 of the projecting aligning portion 83 of the opposing coupler. Up to this time the covers 17 are closed and the bodies 18 are in their extreme retracted positions relative to their supporting brackets 1 fixed to the couplers, and the internal parts are related to each other as shown in FIGURE 4. As the couplers move toward each other, in the direction of the arrows shown in FIGURE 6, toward their final coupled position shown in FIGURE 7, each actuating member 78 is forced, against the force of its associated spring 79, toward its associated connector by movement of the opposing coupler to turn its shaft 76 so that its associated arm 74 moves the body 18 with which it is associated forward to a position where its gasket 62 can engage the like gasket to the corresponding conduit of the other connector to form a sealed joint, as shown in FIGURES 5 and 7.

As is apparent from FIGURE 5, as the body 18 is moved forward, member 38, locked to the body by pins 46, moves with it; tubular member 31, however, retracts relative to the body 18 from its normally extended position relative to the body as its terminal portion engages the terminal portion of the confronting body 18 of the opposing connector, such retraction taking place against the biasing force of spring 57 operating between member 38 and the enlarged front portion 53 of piston member 47. This causes the corresponding gaskets 62 of a pair of connectors to be forced into and to remain in firm fluid-tight sealing contact with each other, independently of the other gaskets on the connectors for other conduits. The above described arrangements and the loose fit of each body 28 in its bracket 1, described above, permit the necessary movements of the connectors relative to the couplers to permit the trainline gaskets of the connectors to be maintained in firm sealing contact even though the couplers move transversely, vertically, longitudinally, or with angling movements relative to each other as the train travels.

As is apparent from FIGURES 5 and 7 as the connectors approach, the above described forward movement of the body 18 of each connector relative to its bracket 1 causes the cam portion 27 carried by body 1 to engage a suitably shaped cam portion 84 of the cover arm 15 of cover member 16 and positively move the covers 17 outwardly to positions where they clear the terminal portions of the connectors as they engage and while they are engaged.

FIGURES 8 and 9 illustrate how connectors very similar to those previously described can be used on interlocking knuckle-type couplers. FIGURE 8 shows the connectors C and C', respectively, mounted below couplers D and D', which in this instance are AAR type F interlocking couplers, by the loose-fitting T-shaped connections described previously, as the couplers move during final coupling movements. FIGURE 9 shows the connected connectors after coupling of the couplers. The bracket 1, body portion 18, and the internal structure of each of these connectors C and C' are identical with the connectors A and A' previously described. However, each connector C and C' is mounted below its couplers with its axis essentially parallel to the pulling axis P—P of the coupler, as shown in these figures, rather than angularly to the pulling axis as in the preceding embodiments, and the means for actuating each connector by contact with the opposing coupler is different.

The actuating means for each connector comprises a shaft 85 that is journaled in one or more lugs 86 on the coupler with which the connector is associated, for rotary movement about an essentially vertical axis. Each shaft 85 carries an arm 87 adapted to extend into opening 71 of the body 18 of the associated connector, as shown in

FIGURES 8 and 9. Each shaft also carries another arm 88, to the end of which is pivotally connected a contact member 89 that extends through an opening 90 in the side of its associated coupler to a position where it can contact a projecting front aligning portion of an opposing identical knuckle-type coupler.

As the couplers enter their final coupling movements, as shown in FIGURE 9, each contact member 89 contacts the opposing coupler and is forced backward, thus moving its associated arm 87 forward and pushing forward the body 18 of the associated connector from its retracted position, shown in FIGURE 8, to its extended position, shown in FIGURE 9, so the terminal portions of opposing connectors can engage and form sealed fluid-tight joints between the gaskets. All other operations of each of these connectors C and C' are the same as the operations of the connectors A and A', so no further description is believed necessary.

It is apparent that the construction of the illustrated connectors is such that the parts can be readily assembled together, readily mounted on a coupler, and readily disassembled for inspection, cleaning or repair if required.

The compact design of each of the illustrated connectors minimizes possibilties of the connectors striking or being struck by parts of cars or the track system. The fact that the terminal ends of the connectors, including gaskets or other trainline terminal portions, are shielded at all times when the connectors are not connected to other connectors, and that they are shielded by the terminal ends of the connected connectors when they are connected, protects the terminal ends including gaskets from dirt, ice or other material that could cause difficulties in effecting satisfactory trainline connections, such as fluid-tight seals.

The illustrated connectors are of such strong construction that they will withstand the shocks and impacts of connecting and disconnecting during coupling and uncoupling as well as the shocks and wear incident to over-the-rail service.

It is apparent that various modifications can be made in the illustrated connectors, other than those indicated above, without departing from the spirit of the invention. It is intended that the patent shall cover, by suitable expression in the appended claims, whatever features of patentable novelty reside in the invention. The terms and expressions which have been employed are used as terms of description and not of limitation and there is no intention of excluding such equivalents of the invention described or portions thereof as fall within the purview of the claims.

What is claimed is:

1. For mounting on a railway vehicle coupler having a coupling end, a connector adapted to form with a like confronting cooperating connector on a coupled cooperating coupler a connection between trainlines, said connector comprising movable body means having an end thereof generally facing the same as the coupling end of said coupler on which said connector is mounted; and a passage in said body means extending toward said end of said body means; means for supporting said body means from said coupler for guided movement relative to said coupler along an essentially linear path between an extended position in which said end is located nearer said coupling end of said coupler and a retracted position in which said end is located further from said coupling end of said coupler, the axis of said passage in said body means being generally parallel to said path of movement of said body means; means for normally maintaining said body means in its retracted position; means actuated by a cooperating coupler as it moves into coupling engagement with said coupler carrying said connector for moving said body means to its extended position; tubular means in said passage in said body means and carrying trainline terminal means thereon adjacent said end of said body means, said tubular means being adapted to move in said passage relative to said body means between positions in which said trainline terminal means is extended and retracted relative to said body means; means biasing said tubular means toward said extended position of said trainline terminal means relative to said body means; and means spaced axially along said tubular member from said terminal means adapted to conduct fluid to and or from said terminal means throughout the range of positions of said terminal means relative to said body means.

2. The connector of claim 1 in which said trainline terminal means is a resilient annular gasket.

3. The connector of claim 1 in which said body means includes a plurality of passages and there are a plurality of tubular means independently movable in said passages, each of said tubular means carrying trainline terminal means.

4. The connector of claim 3 in which each of said tubular means is independently movable in said body means between extended and retracted positions relative to said body means.

5. The connector of claim 4 in which each of said tubular means is biased toward its extended position relative to said body means.

6. The connector of claim 1 in which said body means is normally maintained in a retracted position in which no portion of said connector can engage a portion of a mating coupler.

7. The connector of claim 1 in which said body means is normally maintained in a retracted position in which all portions of said body means are behind the coupling plane of the coupler supporting said connector.

8. The connector of claim 1 in which said means for supporting said body means from said coupler permits limited transverse, vertical, longitudinal and angling movements of said body means relative to said coupler to permit said body means to remain in engagement with like body means of a cooperating like connector when the couplers carrying said connectors are coupled and move relatively to each other during travel of the vehicles carrying the couplers.

9. The connector of claim 1 comprising means for covering the trainline terminal means on the terminal portion of said body means at all times while said body is retracted and until it moves toward its extended position.

10. For mounting on a railway vehicle coupler having a coupling end, a connector adapted to form with a like confronting cooperating connector on a coupled cooperating coupler a connection for a trainline, said connector comprising movable body means having a terminal portion carrying trainline terminal means; means fixed to said coupler for supporting said body means for guided movement relative to said supporting means between an extended position in which its terminal portion is located nearer said coupling end of said coupler on which said connector is mounted and a retracted position in which its terminal portion is located further from said coupling end of said coupler; cover means associated with said body means for covering said trainline terminal means; and means actuated by movement of said body means relative to said supporting means for automatically positively moving said cover means to uncovering position to expose said trainline terminal means as said body means moves to its extended position as said confronting coupler couples with said coupler carrying said connector.

11. The connector of claim 10 in which said cover means is mounted on arm means pivotally mounted on said means for supporting said movable body means, and in which said arm means is caused to move said cover means to uncovering position by being engaged by a portion of said movable body means.

12. For mounting on a railway vehicle coupler having a coupling end, a connector adapted to form with a like

confronting cooperating connector on a cooperating coupler a connection between trainlines, said connector comprising movable body means having a generally cylindrical passage therein and an end generally facing the same as the coupling end of said coupler on which said connector is mounted; means for supporting said body means from said coupler for movement relative to said coupler between an extended position in which said end is located nearer said coupling end of said coupler on which said body means is mounted and a retracted position in which said end is located further from said coupling end of said coupler, the axis of said passage being generally parallel to said path of movement of said body means; means for normally maintaining said body means in its retracted position; means actuated by a cooperating coupler as it moves into coupling engagement with said coupler carrying said connector for moving said body means to its extended position; tubular means slidably mounted in said passage and carrying trainline terminal means thereon adjacent said end of said body means, said tubular means being adapted to move relative to said body means between positions in which said trainline terminal means is extended and retracted relative to said body means; means spaced axially along said tubular means and anchored to said body means; and means located within said tubular means and bearing against said anchored means for resiliently urging said tubular means toward the extended position of said trainline terminal means relative to said body means

13. The apparatus of claim 12 in which there are a plurality of said generally cylindrical passages in said body means and a separate one of said tubular means slidably carried in each passage independently of the tubular means carried by any other passage.

14. The apparatus of claim 12 in which said trainline terminal means is adapted to carry fluid, in which said anchored means has an internal passage and means communicating with said internal passage and adapted to be connected to a trainline adapted to conduct fluid, and which comprises a hollow conduit portion that extends within said tubular member from said trainline terminal means to said anchored means and forms a telescoping joint with one of said means so that fluid can pass between said trainline terminal means and said passage without harmful leakage despite relative movement between said trainline terminal means and said body means.

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