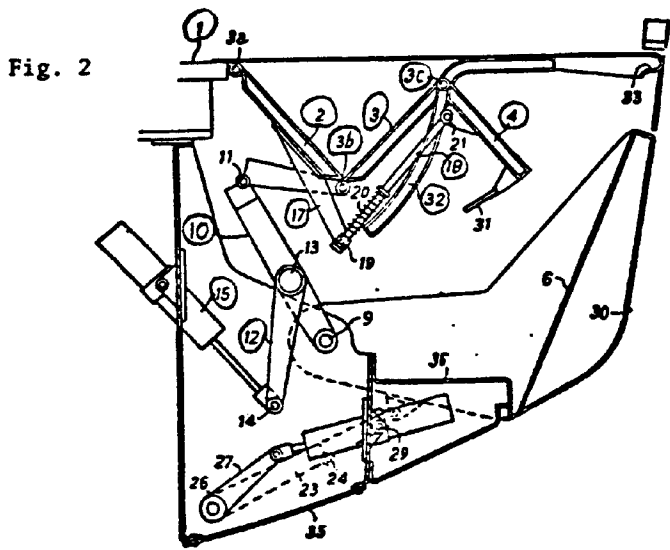


COMMISSIONER'S DECISION

Amendments to drawings and claims to define the interaction of the step and riser elements of the access device were accepted. Rejection modified.

This decision deals with Applicant's request that the Commissioner of Patents review the Examiner's Final Action on application 298,391 (Class 105-228). The application was filed March 7, 1978, and is entitled MULTI-LEVEL ACCESS DEVICES. The inventor is Geoffrey R. Tregoning. The Examiner in charge issued a Final Action on May 8, 1981, refusing the application.

The application relates to an access device, formed of three interconnected parts, for use on a railway passenger car. Figure 2, reproduced below, illustrates the arrangement. A first part 1 has a hinge at one side which is attached to one side of second part 2. At its opposite edge part 2 is hinged to part 3. The opposite edge of part 3 is hinged at 3c to part 4. Guide means 32 are provided for guiding part 3 between a top position in which the three parts form a platform, to a lower position in which parts 3 and 2 form respectively a step and a rise. The guide means supports part 3 at the lower position. An over-center two-piece strut means 10 supports and actuates parts 2 and 3 at their hinge point 3b. A pivoted pneumatic cylinder 15 actuates the strut means using a connecting arm 12. Part 2 has an arm 17 extending therefrom which is connected to linkage 18 to move part 4 between the two positions.



The Examiner rejected all the claims as failing to recite sufficient elements to perform the operation described in the disclosure and shown in the drawings. In the Final Action the Examiner stated (in part):

...

The refusal of claims 1 to 4 is maintained; furthermore claim 5 is also refused because it does not overcome the objection to claim 4 upon which it is made dependent.

Claims 1 to 5 as presented do not enclose sufficient structural members and the cooperative interrelationship between such members, such that the structure claimed can perform its task in accordance with the teaching of the disclosure and drawings of the application.

The disclosure teaches an access stairway and platform device for entrance to a railway passenger car. The said device in order to be able to perform its required task must include elements 2, 3, 4 and 6 as well as linkage interconnecting the said elements.

As claimed in claims 1 to 5, only portions of the device are included, and such portions by themselves would not provide a means for a passenger to board a passenger vehicle.

Claims 1 to 5 are rejected under Section 2 of the Patent Act as being incomplete and failing to recite sufficient elements for proper operation of the invention.

Applicant's argument that what he is claiming is a specific preferred embodiment, does not overcome the rejection of the claims as noted above.

The claims are directed to an access device, which according to the disclosure permits entering a railway passenger car. The said access device, in order to perform its task in accordance with the teaching of the disclosure and drawings, must include sufficient structural members and the cooperative interrelationship between such members, so that a person can enter the passenger car from a raiiside platform; the rejected claims fail to do this.

The claims teach an incomplete portion of the device disclosed. The elements claimed are parts 1, 2 and 3, hinged together and are over the center strut #10.

An examination of the drawings, shows that if parts 4, 17, 18, 19 and 20 are omitted, then the third part 3 and second part 2 would not move in to place in an orderly manner such that part 3 will be a step and part 2 will be a riser.

The bracing action of elements 17, 18, 19 and 20 is required to control the movement of hinged elements 2, 3 and 4 in that element 10 will be able to raise or lower the said step elements 2, 3 and 4.

The partial matter claimed by the refused claims will not and cannot form a step access to the passenger car. The mere utilization of a mechanical movement of elements 2 and 3, is not only incomplete insofar as movement is concerned, but also will not provide the access to a passenger car.

In view of the above discussion claims 1 to 5 are refused because they do not include sufficient structural elements such that the device claimed can perform a useful task.

...

In presenting his case for allowance of the claims, Applicant argued (in part):

...

The first substantial objection in the Final Action is a reiteration of the Examiner's belief that elements 2, 3, 4 and 6, as well as unspecified interconnecting linkage, are essential. Applicants can only repeat their previous assertion that the elements 4 and 6 are not essential, nor is there any basis in the specification for suggesting that they are. Furthermore, there is no linkage interconnecting with element 6 other than the supporting structure of the vehicle. The step 6 may be omitted altogether. Furthermore, the specification quite clearly describes the actuator means (23, 24, 26 and 27) for raising and lowering the step as independent in form and operation from the actuator means (10, 11, 12, 13, 14, 15 and 16) for moving parts 2, 3 and 4. The drawings show that the strut 10 and the step 6 are pivoted on the same axis at 9, but consideration of the drawings in conjunction with the description will show that there is no interconnecting linkage. In fact the strut 10 and step 6 share the same pivotal axis merely to save weight and cost.

The second last paragraph in the first page of the Official Action is unclear, since no such argument has been made by applicants.

The last paragraph in page 1 of the Final Action suggests that the Examiner does not understand the function of the claims in a patent. It is common ground that the claims must set forth an operable structure. The Examiner has failed to show that the present claims do not meet this requirement, but rather concentrates his arguments on a requirement that applicant's main claim should include virtually all of the structure described in relation to a specific preferred embodiment of the invention. It is submitted that the Examiner's approach to this question is inherently unsound.

The first three paragraphs in page 2 of the Final Action cause the applicants to wonder whether the Examiner indeed understands how the described embodiment operates, and whether he fully appreciates the meaning of the term "over-centre elbow strut". The language of the Final Action states (page 2, third paragraph):

"The bracing action of elements 17, 18, 19 and 20 is required to control the movement of hinged elements 2, 3 and 4 . . . ".

This is not correct. The strut 10 will move the hinged elements 2 and 3 to form a riser and step respectively without the presence of elements 4 and elements 17, 18, 19 and 20. The action of these latter elements is described at page 6 lines 14 to 20 and page 7 lines 13 to 23 of the specification. Applicants have reviewed this point on a working model, and confirm that the elements merely control the angle of the part 4 relative to parts 2 and 3 so that it also forms a riser.

In deployment of parts 2, 3 and 4 to form a step the hinge 3b is pulled, in the plane of the drawings, downwards and leftwards. Clearly, as the drawings show, hinge 3b swings about an arc centred on 3a having a radius determined by the length of part 2. To form a tread, part 3 must be substantially horizontal so that the lower end point of guide means 32 is critical since it supports 3c in the deployed condition. To form a riser part 4 would adopt the correct position if merely left to hang freely under the influence of gravity. The function of elements 17, 18, 19 and 20 is to produce a pronounced early "kick up" of the leading edge of part 14 to permit its engagement with the hooked sections 33 (Figure 2). Thus they have no substantive effect on the operation of the basic invention.

For the foregoing reasons it is submitted that the Examiner's objections to claims 1 to 5 are without substance and should be overruled.

...

The issue before the Board is whether or not the claims contain sufficient elements to define the operation of the invention. Claim 1 reads:

An access device having a platform formed of three parts, an edge of a first of said parts being hinged at first hinge means to an edge of a second of said parts, the opposite edge of which is hinged at a second hinge means to an edge of a third of said parts, guide means being provided for guiding the third part between a position in which the three parts form a platform at one level and a position in which the third and second parts form respectively a step and a riser between a lower level and said one level, means for actuating said second and third parts between said levels, and over-centre elbow strut means for supporting the second hinge means at the one level.

During review of the application and Applicant's arguments it became apparent that the model that Applicant referred to was different in some aspects than the arrangement of the access device shown in figure 3. We contacted the Agent who informed us that in the model, the guide means was closed at its lower end to retain the hinge means 3c connected to the step part 3. During

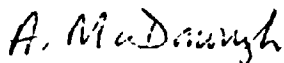
the discussion it was appreciated that in figure 3 of the drawings, which shows the access device in its step/riser mode, the drawing contained no end closing depiction for guide means 32. In figure 2 however, such a closure was shown, and support for the closure was found to be present in the disclosure.

By amendments dated March 4, 1983 and March 15, 1983, Applicant submitted respectively, drawing corrections to figures 1 and 3, and an amended claim 1 which reads:

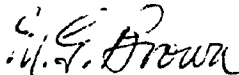
An access device having a platform formed of three parts, an edge of a first of said parts being hinged at first hinge means to an edge of a second of said parts, the opposite edge of which is hinged at a second hinge means to an edge of a third of said parts, guide means being provided for guiding the third part between a position in which the three parts form a platform at one level and a position in which the third and second parts form respectively a step and a riser between a lower level and said one level, means for actuating said second and third parts between said levels, and over-centre elbow strut means for supporting the second hinge means at the one level, and means to support the third part at said lower level.

We are satisfied that the above amendments to the drawings and to the claims are acceptable in view of the disclosure in the application.

We recommend that the amendments be accepted as overcoming the rejection made by the Examiner.



A. McDonough
Chairman
Patent Appeal Board



M.G. Brown
Member



S.D. Kot
Member

I concur with the findings and the recommendation of the Patent Appeal Board. Accordingly, I am remanding the application to the Examiner to continue prosecution consistent with the recommendation.



J.H.A. Gariépy
Commissioner of Patents

Dated at Hull, Quebec

this 17th. day of May, 1983

Agent for Applicant

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