

COMMISSIONER'S DECISION

OBVIOUSNESS: AUTOMATIC FISH DUMPER

Mechanical means for lifting fish out of a ship's hold is shown in the cited art. While the inventor has features which overcome the disadvantages of the prior art the description relating to these features is vague. Amendment to the disclosure governed by Rules 48 to 57 is suggested.

Final Action: Rejection of the application is withdrawn.

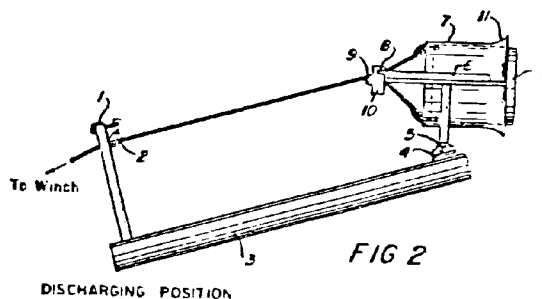
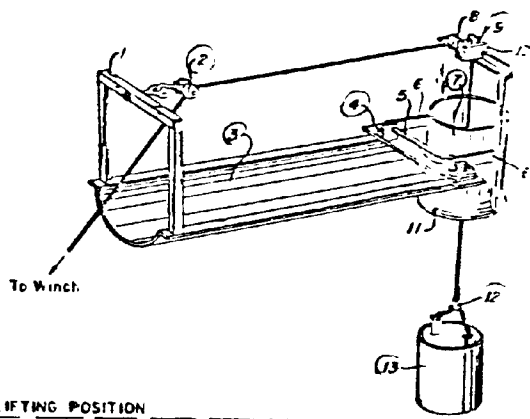
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Patent application 353,480 (Class 201-30), was filed on June 11, 1980

for an invention entitled AUTOMATIC TUB DUMPER. The inventor is Edward B. Newell. The Examiner in charge of the application took a Final Action on June 25, 1982 refusing to allow it to proceed to patent. In reviewing the rejection, the Patent Appeal Board held a Hearing on March 14, 1984 at which the Applicant was represented by Mr. R. Broderick, the Agent. Also present were Mr. E. Newell, the Inventor and Mr. W. McDonald, the Manufacturer.

The subject matter of this application relates to mechanical means for lifting fish out of a ship's hold. It consists of a tub like receptacle lifted by a winch line through an open ended container which is pivotally mounted to discharge the contents onto a trough. Drawings illustrating the application are as follows:

**FIG 1**



**FIG 2**

Tub 13 is pulled by the winch cable via pulleys 2 and 9. When the wedge shaped handle 12 reaches the pully 9 the container 7 pivots about the pillar blocks 4 to tip the container and transfer the tub contents on to the sloping trough 3.

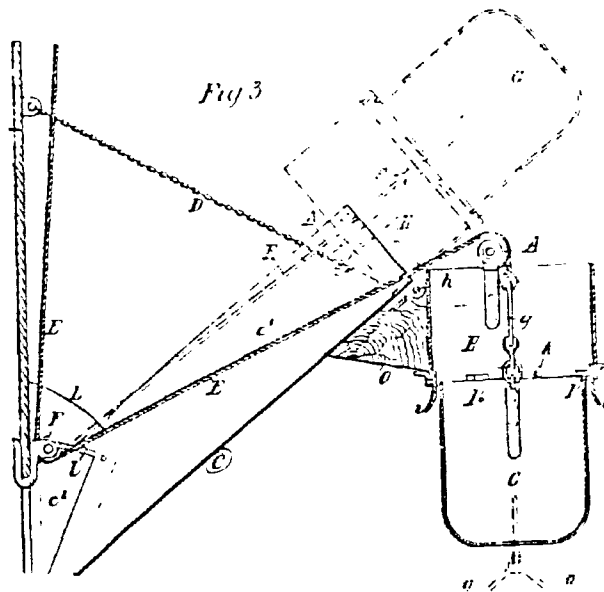
In the Final Action the Examiner rejected the application in view of the following:

Canadian Patent 40,444

Sept. 22, 1892

Abbott

Abbott describes apparatus for loading and unloading vessels. Figure 3 is as follows:



Container G has a handle g which is attached to a winch cable E. When the winch is activated the top of the container rim contacts the stop members I of the guard or tippler H and then rotation about pivot h occurs to dump the contents down shoot C.

In the Final Action the Examiner stated (in part):

...

It is reiterated that Abbott clearly describes and shows systems for lifting material from a boat and for discharging the material into trough at an elevated location, substantially as defined by applicant.

The system shown in Figure 3 of the cited patent includes a sloped trough, a vertically disposed circular container, open at both ends, pivotally mounted at the upper end of the trough, a plurality of flared guide elements spaced around the periphery of the lower open end of the container and secured thereto, a circular tub having an inverted V-shaped handle disposed below the container, a lifting line secured to the handle, said line extending upwardly through the open container, passing around guide pulleys located at both upper and lower ends of the trough and thence to a winch.

To operate the Abbott system described above, the tub is first lowered to a location where the tub is permitted to scoop up a load of material. The tub is then lifted by the winch line and guided by the flared elements into the lower end portion of the open container. The container is adapted to be pivoted by the upward motion of the tub, causing both container and tub to tilt and thereby discharge the tub load of material into the upper end of the trough substantially as proposed by applicant.

In applicant's letter of December 23, 1981 it is argued that the present device includes a container having a flare extending entirely about the periphery of the open lower end of container, rather than spaced guides as shown by Abbott. It is held, however, that the flared lip utilized by applicant is a mechanical equivalent of the peripherally-spaced flared guide elements shown by Abbott, and may not be relied upon for patentable distinction.

Applicant has also argued that Abbott's tub does not telescope entirely within the open container as in the present device. However, a careful examination and comparison of the operation of Abbott's device and applicant's device reveals no significant advantage or improvement in having the tub telescope almost entirely within the container, rather than only a short distance within the lower portion of the container, before the container is caused to pivot, thereby tilting the tub for load dumping. The mode of operation and the end result are the same in both cases.

Other structural differences inherent in applicant's system and as defined in claims 1-4 are deemed to be matters of design expediency, and not those arising through inventive ingenuity. It is also pointed out that much of the descriptive matter set forth in claim 1 is not fully supported by the disclosure. Examples of elements and descriptive terminology deemed not to be fully supported by the disclosure are: "a semi-circular trough closed at one end", "two vertical rectangular bars", "a loop to hold a pulley", "a rectangular bar section projecting from two bars attached to the container", "a wedge-shaped pulley", "two perforated blocks which act as tripping devices", and "horizontal bars provided with perforations so that each may be bolted to a stationary support in alignment with each other".

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In response to the Final Action the Applicant stated (in part):

...

2. It is argued that the following Patentable improvements and differences between the Abbott Patent and the present device exist, namely:

(a) Present Applicant's device including, as it does, a container having a flare, extending entirely about the periphery of the open lower end of the container, is completely different from the spaced guides as shown by Abbott on his container and that the flare is, indeed, a new and useful Patentable improvement over the Abbott Patent, in that the spaced guides shown in the Abbott container lend themselves to being caught, bent or broken off by the tub, as it enters the container in operation, thus leading to error and malfunction of the tub dumping mechanism and to delays in the whole operation until repairs are made. Present Applicant's flared container eliminates the above difficulties and thus increases the efficiency of the whole operation and therefore, it should be concluded to be an important Patentable distinction and improvement.

(b) The flared periphery described above is unique, in that it completes two functions namely, the first function is that the flared periphery stops the tub and the second function is that the flared periphery turns the tub to its proper position for dumping. In the Abbott Patent, stops are required to stop the tub and a cross-bar is required to turn the tub to the required position for dumping. The said flared periphery on present Applicant's device thus eliminates the stops and the cross-bar disclosed by Abbott and is a further improvement which results in a simplification of the device and eliminates the stops and cross-bar as disclosed by Abbott.

(c) The Abbott tub does not telescope entirely within the open container, whereas present Applicant's tub does so. It is argued that the fact that present Applicant's tub does so telescope as described, increases the efficiency and the operation of the whole device, in that in the Abbott device, the contents of the tub is discharged into the container itself, which could result in a jamming of its contents between the tub and the container, which would lead to further delays in the whole operation of the invention, because the container and the tub would have to be taken apart and the jammed material removed, resulting in further delays and expenses to the user. Present Applicant's invention thus provides a further advantage and improvement over Abbott.

(d) It is further argued that, while there may be some similarities between the Abbott device and the present Applicant's device and, while the end operation of both devices may be designed to achieve, more or less, the same objectives, present Applicant's device is much more efficient, easier to operate, eliminates the repairs and delays and the manual labour involved in same inherent to Abbott's device, and therefore must be considered to be an improvement over the prior art cited.

(e) The obvious structural differences between present Applicant's device and the Abbott device are not merely matters of design expediency, but are in fact the result of present Applicant's inventive ingenuity and that they are therefore novel Patentable differences and improvements over all the prior art cited.

(f) It is pointed out that the descriptive terminology which Examiner considers as not being fully supported by the disclosure, is quite clear and could not be mistaken to mean anything other than the words themselves indicate, but that in any event, these objections are relatively minor ones, which may be readily remedied by amendment.

...

The consideration before the Board is whether or not the application is directed to a patentable advance over the art of record.

At the Hearing Mr. Newell outlined the problems of handling fish and his solution of mechanically lifting them as set out in this application. Mr. McDonald spoke about the manufacture of the device and Mr. Broderick presented arguments with respect to patentability particularly pointing out the commercial success of the Applicant's arrangement.

In the Final Action the Examiner rejected the application for not "presenting any patentable subject matter in view of the teachings" of the Abbott patent. He indicated that Abbott describes and shows systems for lifting material from a boat and for discharging it into a trough. Further he stated that the reference shows a pivotally mounted vertically disposed container, open at both ends, having a plurality of flared guide elements around the lower end of the periphery, a circular tub having an inverted V-shaped handle disposed below the container and a lifting line secured to the container. Accordingly the Examiner concluded that the flared lip utilized by the Applicant is a mechanical equivalent of the peripherally spaced flared guide elements shown by Abbott.

It is the Applicant's position that his use of a flare extending entirely around the periphery of the container represents a patentable improvement over the four 90° spaced flared guide elements shown by Abbott. Mr. Newell pointed out that in practice there is considerable lateral bucket-sway due to wind or ocean conditions and maintained that the limited guidance offered by the four narrow flared tabs of Abbott would not be practical for the high winch speeds utilized by his

arrangement. We agree that the use of a flare represents a more positive means for directing the tub into the container than is the use of four tab members of Abbott and that it would be less likely to snag the bucket under the practical conditions described by Mr. Newell.

Another issue raised in the Final Action was that there was no significant advantage or improvement in having the tub telescope almost entirely within the container as contemplated by the Applicant when compared to the short distance described by Abbott before the container pivots for load dumping. At the Hearing Mr. Newell explained that because of the speed of his cable the tub is "thrown up" into the casing to cause simultaneous pivot movement due to the centrifugal force involved, thereby dumping the tub contents. He stressed that the short telescopic distance shown by Abbott could only operate at a very slow winch speed where no centrifugal force is present and he reasoned that if Abbott were to utilize a fast cable speed then the centrifugal force would tend to "separate" the tub from the container. We are persuaded that the fully telescoping feature is essential to attain consistent and reliable operation as contemplated by the Applicant.

Another issue discussed at the Hearing was the manner in which the tub is turned to the dump position. This application states that the mouth piece turns the tub in proper dump position. We should point out in this regard that the Applicants' unnumbered figure showing the tub in dump position does not show the tub in the correct turned manner as envisaged by Mr. Newell and described by him to us at the Hearing. Abbott also shows a bar for turning the tub before dumping which indicates that this idea is not new.

Mr. Newell pointed out that in the Abbott arrangement the tub would jam the container when the handle was in the position shown in phantom in the lower right hand corner of figure 3 because it would tilt the tub rather than turn it when in contact with the bar k. This would also cause the tub to jam in the guide. While it is difficult to determine how often the Abbott handle would contact the bar at 90° we must agree with Mr. Newell that, if that situation occurred, then jamming would result. We also agree with Mr. Newell that his arrangement apparently overcomes this drawback in Abbott.

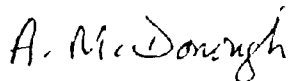
From what we learned at the Hearing the circular flare on the container bottom, the telescoping of the tub within the container and the location of means to turn the tub are features which enable the Applicant's arrangement to operate at a much higher winch speed with no jamming than is possible with the Abbott device. We also learned at the Hearing that damage to the cargo, a serious problem in fish handling, is considerably reduced when compared with manual unloading systems. After listening to the explanations at the Hearing we are satisfied that Mr. Newell has overcome considerable disadvantages in the prior art with his features. We conclude that the continuous flare and fully telescopic action are features that represent an improvement over the cited Abbott patent when they are considered in combination with the tub-turning device.

At the Hearing there was considerable and we think useful discussion of the disclosure with respect to practical details concerning turning of the tub. Mr. McDonald also stated that the placement of the winch pulleys and support arm length are critical to pivot the tub for discharge at the winch speed envisaged by the Applicant.

We must point out that when the Final Action was written the Examiner was limited to the information before him in the specification and we agree with his issuing that action on the basis of the information in the specification. It is only after the very informative Hearing that brought to light many details of the invention that we now can conclude that the Applicant has in fact made a patentable advance over the Abbott reference. However the patentable advance is not at present described in the application. The Board considers that if the combination of features; the circular flare, the telescoping into the container and the location of the turning means above the container can be properly incorporated into the specification, the application should be acceptable. The extent to which these details can now be included in the disclosure is a question of examination. We wish to point out that Rules 48 to 57 of the Patent Rules govern amendments that can be permitted in an application.

Having concluded that subject matter has been invented over the art of record we now turn to the claims and the second objection in the Final Action that "Claim 1 is not fully supported by the disclosure." The Examiner pointed out differences in descriptive terminology used in the claim and the disclosure and some elements in the claims that did not appear to be supported by the disclosure. These include reference to a "semi-circular trough closed at one end" which is shown open-ended in the drawing. This claim also refers to "two vertical rectangular bars", "a rectangular bar section projecting from two bars attached to the container", and "a wedge-shaped pulley". We are unable to find any description relating to the rectangular bars or wedge shaped pulley in the disclosure or drawings. We must emphasize however since claim 1 is as originally filed it forms part of the original specification, therefore any features lacking support can be incorporated in the disclosure by amendment under Rule 52 of the Rules.

In summary, we recommend that the rejection of the application be withdrawn and that the application be returned to the Examiner for further prosecution in light of the additional information supplied at the Hearing.

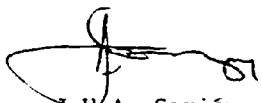


A. McDonough  
Chairman  
Patent Appeal Board



S.D. Kot  
Member

I concur with the findings and the recommendations of the Patent Appeal Board. Accordingly, I withdraw the Final Action, and I am remanding the application to the Examiner for prosecution consistent with the recommendation.



J.H.A. Gariépy  
Commissioner of Patents

Agent for Applicant

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Dated at Hull, Quebec

this 17th. day of April, 1984