

**OPINION UNDER SECTION 74A**

Patent	EP 1062631
Proprietor(s)	Topgolf Systems Limited
Exclusive Licensee	
Requester	Norman Matheson Lindsay
Observer(s)	None
Date Opinion issued	18 January 2018

**The request**

1. The Comptroller has been requested to issue an opinion as to whether the Patent, EP 1062631 is valid. The Patent was filed on 19 March 1999, claiming priority from a UK application dated 19 March 1998, and was granted on 31 July 2002. However, opposition proceedings followed and the document was republished as EP 1062631 B2 on 24 May 2006, following amendment. This patent is currently in force, though subsequent to the opinion request, an offer to surrender the patent has been made. The surrender process is a separate process, and I need say no more about that here.
2. In his request Mr Lindsay identifies JP 8-224331 as prior art, which Mr Lindsay suggests shows that the Patent is not new. This document does not appear to have been considered during the examination process at the EPO, nor in the opposition proceedings. This document was published on 3 March 1996. Mr Lindsay has provided a translation into English of this document, and I shall base my opinion on this translation.
3. No observations were filed in response to this request. For completeness, I should perhaps also record that no observations were filed in response to an earlier opinion request, based on this same prior art document, which was withdrawn before the office considered that opinion request.

**The Patent**

4. The Patent relates to a golfing system, in which a ball identifying means is used to determine which ball a player is driving from a tee. The Patent following opposition has a single independent claim, and 3 dependent claims. Claim 1, following the opposition proceedings reads:

A golf driving range (10) employing uniquely-coded golf balls (21) and having ball-identifying means (75,90) located at a tee of the range, said ball identifying means (75, 30) being connected to a computer system so that the computer system knows which ball a player is driving from said tee,

characterised in that the range further comprises means (70) which automatically supply balls (21) one-by-one to said tee, said supply means comprising means (74) for moving each successive ball from a first position in which it can be identified by said ball-identifying means to a second position in which it can be driven from said tee by a player,

and wherein the ball-identifying means (90) is arranged in or underneath said tee (84) so that it can identify a ball (21) placed thereon or adjacent thereto.

5. Figure 5 shows one embodiment of the invention, and I have included that here.

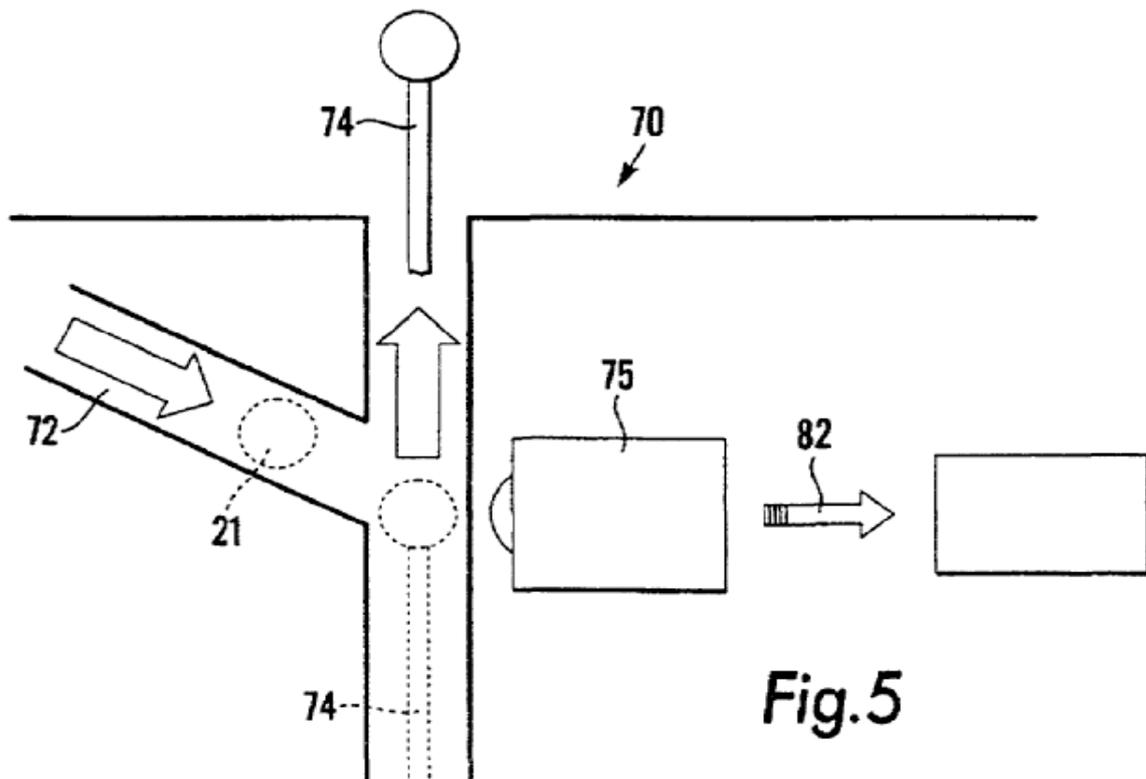


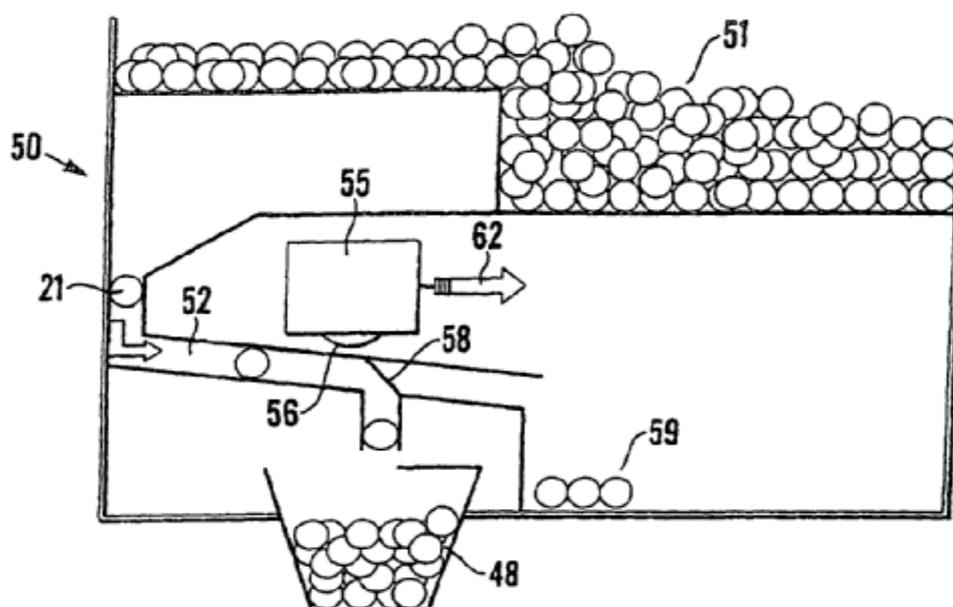
Fig.5

### Claim construction

6. In the request, Mr Lindsay makes a number of comments about the construction of the claims. In order to do so, I need to construe the claims of the Patent, that is to say I must interpret it in the light of the description and drawings as instructed by Section 125(1). In doing so I must interpret the claims in context through the eyes of the person skilled in the art. Ultimately the question is what the person skilled in the art would have understood the patentee to be using the language of the claims to

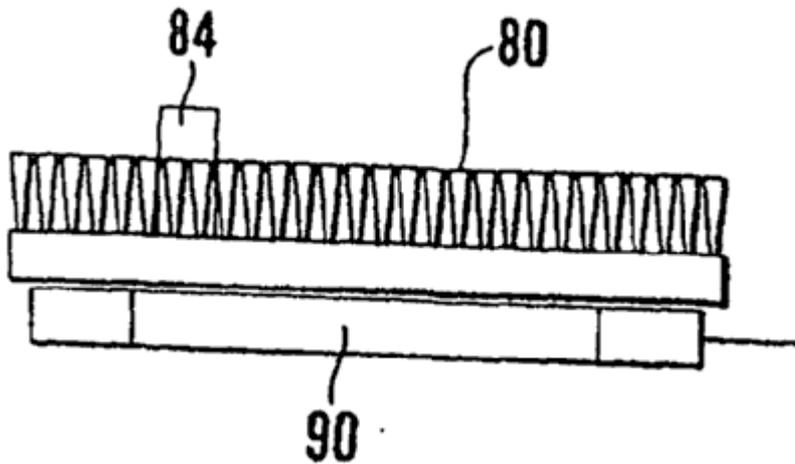
mean.

7. I think that it is worth saying a few words here about who I think that the skilled man might be. I am mindful that it might be argued that the skilled man should be someone skilled in the art of designing golf driving ranges. However, I think that such an individual, given the problem of the need to identify golf balls on such a range, might reasonably be expected to consult an expert in the field of object identification using radio transceivers.
8. First, Mr Lindsay suggests that the passage in paragraph 25, where RFID readers supplies the unique code of the ball by means of a link to the computer, suggests that the uniquely-coded golf balls would be understood to indicate that the computer systems identifies each particular ball individually. I agree.
9. Secondly, Mr Lindsay discusses the scope of the clause: *“means (70) which automatically supply balls (21) one-by-one to said tee, said supply means comprising means (74) for moving each successive ball from a first position in which it can be identified by said ball-identifying means to a second position in which it can be driven from said tee by a player.”* He does so in order to suggest that the means might be both one involving the appliance of a motive force, to lift the ball up from below the tee, and one using gravity, to allow the ball to descend, by gravity, as the ball might descend through an inclined channel such as that shown as 72 in the above drawing. Indeed, Mr Lindsay notes that the *“said supply means”* of claim 2 suggests that the supply means comprises *“a channel 72 for supplying each successive ball to said first position.”*
10. There is however, a further point that I must consider here, and that is the extent to which the first position must be the position in which the ID of the ball must be determined.
11. Next, Mr Lindsay turns to paragraph 26, where a ball dispenser (as in figure 4) dispenses balls one by one.



**Fig.4**

12. The golfer then places the balls on the tee, As is shown in figure 7, the tee 84 may be on a mat 80.

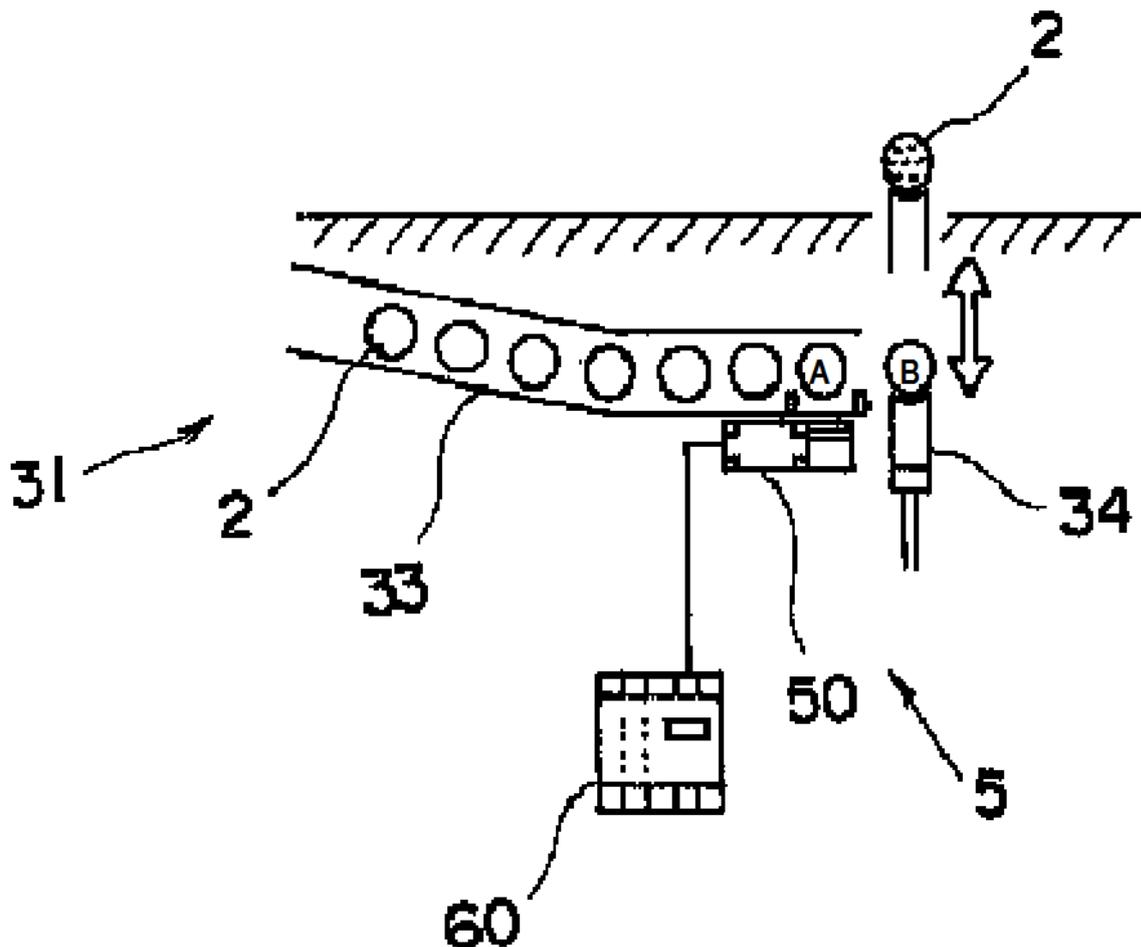


13. Mr Lindsay suggests that such an embodiment might be difficult to reconcile with the wording of the claimed invention, despite it being described as an embodiment of the invention. Firstly, for it to do so, I must interpret the supply means to be broad enough to cover a ball dispenser where, for example, the golfer then places the balls on the tee. To me this underlines that the term comprises means including, i.e. other integers or features may be present. This conventional interpretation of comprising to mean including was approved of by Kitchin J. in DLP Ltd's Patent [2007] EWHC 2669 (Pat), [2008] RPC 11.
14. This means ultimately, that I think that the physical arrangement is not limited solely to the arrangement shown in figure 5 with the sensor being disposed horizontally to the position on which the ball is to be lifted from. Rather it implies that the sensing occurs at a first position, and means are provided which automatically move the ball, and that other integers may be present which mean that the ball arrives at a second position, where it can be driven. That is consistent with paragraph 14 of the Patent, which suggests that reading heads are located "directly adjacent the respective channels."
15. Finally, Mr Lindsay discusses the meaning of the clause "*arranged in or underneath said tee*". He does so to suggest a degree of difficulty with the claim and this figure 4+7 arrangement, as the antenna 90 is detecting the ball on the tee 84, and not at a first position, before moving to the tee.
16. Whilst I suppose it might be possible that the detector 55 in figure 4, and the antenna 90, in figure 7, collectively form a ball detection means that can determine the ball identity both in the dispenser (a first position) and on the tee (a second position). This could then all be arranged to be underneath the tee (so notionally the dispenser is also be underneath the mat.) Ultimately, given what I must consider in the cited document, I am not convinced that much turns on this fine point though.
17. The claim appears to me to cover an arrangement where ball supply means are underneath the teeing area or mat, and the ball is identified beneath that ground level, before being lifted up to a position where it can be driven.

18. That is I think sufficient for me to turn to the document cited in the request.

### The Prior Art

19. The Japanese document identified in this opinion request, similarly relates to a golf tee arrangement.
20. Figure 4 provides a useful illustration of such a system. This arrangement shows a sensor 50 which identifies the balls, and which is connected to a computer system 60. A push up rod 34 pushes the balls up to be set at the shot position, for the golfer. I have labelled two positions here A and B: A being the ball above the reading sensor 50; and B being a ball on the push rod 34 prior to the ball being pushed up.



### Argument

21. Mr Lindsay sets out a mapping of features in the Japanese prior art document to the claim, and this seems to me to be a useful approach.

*A golf driving range (10) employing uniquely-coded golf balls (21) and having ball-identifying means (75,90) located at a tee of the range, said ball identifying means (75, 30) being connected to a computer system so that the*

*computer system knows which ball a player is driving from said tee,*

22. As I have already noted above, the ball identifying means, a sensor connected to a computer are beneath the teeing position. In paragraph 17 of the prior art document an individual ID code is assigned to the ball's chip-like data carrier with a transmission coil. I therefore believe that the prior art document provides this feature.

*characterised in that the range further comprises means (70) which automatically supply balls (21) one-by-one to said tee, said supply means comprising means (74) for moving each successive ball from a first position in which it can be identified by said ball-identifying means to a second position in which it can be driven from said tee by a player,*

23. Here the position in which the ball is identified appears to be at position A, with the ball then passing to position B before being pushed up to the position where it can be driven from the tee. I think this is sufficient for this part of the claim.

*and wherein the ball-identifying means (90) is arranged in or underneath said tee (84) so that it can identify a ball (21) placed thereon or adjacent thereto.*

24. Again here, I think that this can clearly be derived from the prior art document and its description of figure 4.

## **The dependent claims**

*2. A range according to claim 1 wherein said supply means (70) comprises a channel (72) for supplying each successive ball (21) to said first position, in which it rests on a push rod (74), the push rod being movable to place the ball in said second position.*

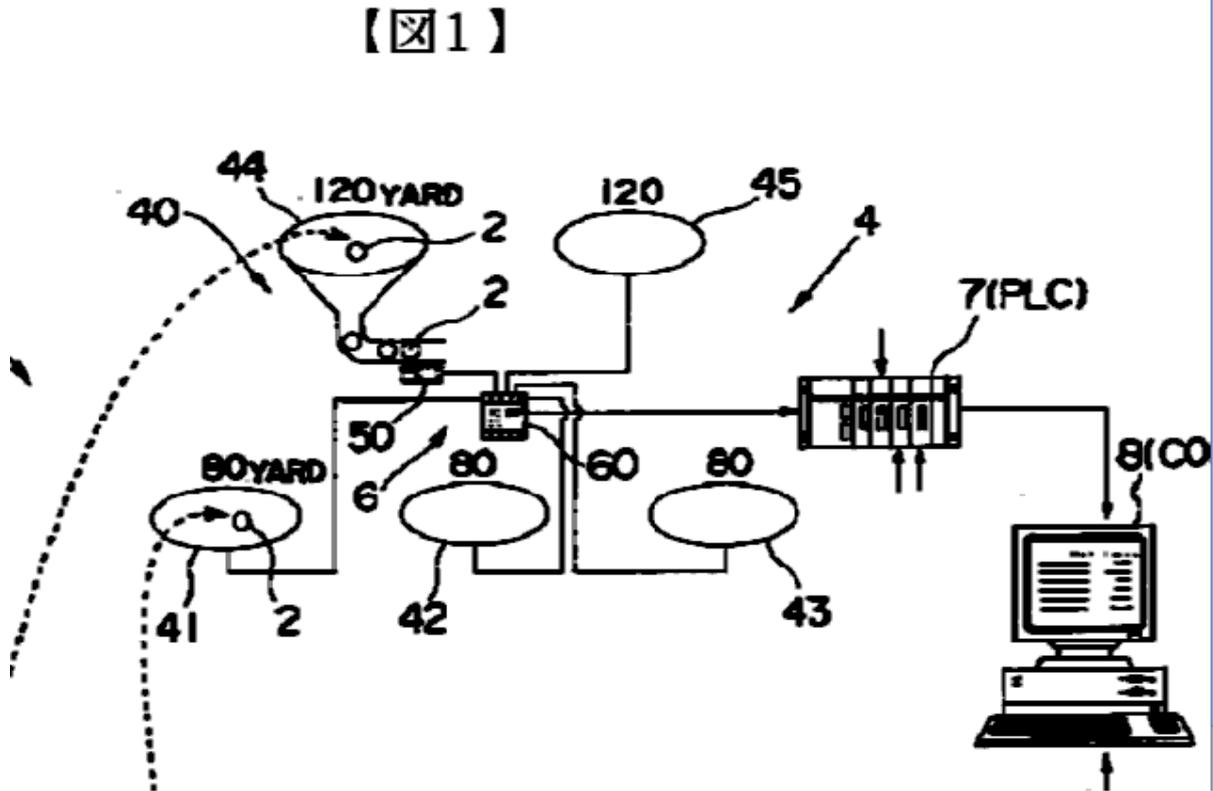
25. This claim places several additional restrictions on the claim, in that the push rod moves the ball from the first sensing position to the second position where the ball is driven. Mr Lindsay does not directly address this point. It seems to me that this claim not only requires the addition of a push rod, but also that the first position is the position of sensing. This it seems to me moves away (or perhaps further away) from the second embodiment described in the Patent of the smart mat and ball dispenser shown in figure 4 and 7 of the Patent.

26. When I turn to the prior art document, it seems to me that there is a distinction to be made, in that the position of sensing A is not the same position as the position in which it rests on a push rod, which I labelled B. It therefore seems to me that claim 2 is novel over the prior art document cited. I have not been asked to consider the question of inventive step, nor has Mr Lindsay provided any commentary on this.

*3. A range according to any preceding claim comprising means (20) for collecting driven balls and incorporating second ball-identifying means (25)*

also connected to said computer system.

27. Mr Lindsay points to paragraphs 21 and 29-31 of the prior art document, describing what is shown in figure 1 (part of which I reproduce below) which show the collection of balls in a target region 40 being collected and identified by a sensor 50.



28. It seems to me therefore that claim 3 (when dependent on claim 1) is not distinguished from the prior art document.

4. A range according to any preceding claim wherein each golf ball (21) incorporates a coded RF-transponder and the ball-identifying means (75,90,25) employ RFID technology

29. Mr Lindsay notes paragraph 17, 22, 23 and 26 of the prior art document in relation to this feature. Those passages describe a data carried which can transmit the identification of the ball using a capacitor to store an interrogating reader's radio transmission. I think that the skilled man would appreciate that this is an RFID transponder, and that this is therefore implicit in the document. I therefore believe that claim 3 is similarly not distinguished from the prior art document. If I am wrong on that being implicit, then it seems to me that RFID transponders form part of the common general knowledge (indeed the Patent acknowledges in paragraphs 6 and 7 such transponders); I do not therefore believe that claim 4 provides an inventive step.

## **Opinion**

30. I am therefore of the view that claims 1, 3 and 4 are not novel, in respect of JP 8-224331.

## **Application for review**

31. Under section 74B and rule 98, the proprietor may, within three months of the date of issue of this opinion, apply to the comptroller for a review of the opinion.

Robert Shorthouse  
Examiner

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## **NOTE**

*This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.*