Letter to EPO

Dear Sirs,

This is in response to the Communication. A new set of claims is attached to replace the claims currently on file.

Claim Amendments

Claim 1 has been amended to include a driveway sensor as specified in previous claim 2. Previous claim 2 depended on claim 1. Basis for a combination of the driveway sensor specified by previous claim 1 with the features of previous claim 1, is thus provided by claims 1 and 2 as filed.

Previous claim 2 also specified a second display means, which has not been added to claim 1. This amendment therefore amounts to an intermediate generalisation as dealt with in section H-V-3.2.1 of the Guidelines. According to H-V-3.2.1 extracting a feature in isolation from an originally disclosed combination is allowable if:

- the feature is not related or inextricably linked to the other features of the disclosed embodiment; and
- the overall disclosure justifies the generalising isolation of the feature and its introduction to the claim.

The second display means is described at paragraph [009] in connection with the first embodiment and at its function is disclosed at lines 12-14 of page 3 of the application. Paragraph [009] states that the system preferably includes the display panel 9 thereby indicating that the display panel 9 is an optional feature. Lines 12-14 of page 3 state that the control unit may light up the display panel 9, thus indicating that the function of the display panel 9 is optional and ancillary to the other features of the embodiment. The skilled person would thus understand that a second display panel is not inextricably linked to other features but merely provides an ancillary function.
The second embodiment shown in Figure 2 includes all of the features of newly amended claim 1 and does not include a second display panel. Further evidence is thus provided that the second display panel is not inextricably linked to the other claimed features. Furthermore the overall disclosure provides functioning embodiments which do not include the second display panel, thereby justifying the generalising isolation of the driveway sensor without including the second display means. The main function of the driveway sensor is related to activation of the pavement sensor (as will be described below). For these reasons this amendment is allowable under the test provided at GL H-V-3.2.1 and does not therefore violate A123(2) EPC.

Claim 1 has been further amended to include the subject matter of previous claim 4. Claim 4 previously depended on claim 2 or 3. Previous claim 4 as dependent on claim 2 provides basis for the combination of features claimed by newly amended claim 1. As was described above relative to the subject matter of previous claim 4 as dependent on claim 2, newly amended claim 1 omits the second display means. The isolation of claimed features without including the second display means is allowable under H-V-3.2.1 for the reasons given above.

New claim 2 specifies the second display unit previously specified in claim 2. Basis for the combination of features specified by new claim 2 as dependent on newly amended claim 1 is provided by previous claim 4 as dependent on previous claim 2.

Claim 3 corresponds with previous claim 3 except that it has been amended to specify that the first display means is an LCD screen. Basis for this amendment may be found at page 2 line 9 of the description. Basis for the control unit being an integral part of a display means in the form of an LCD screen is provided by page 2 line 14-15. Basis for the combination of claim 3 with new claims 1 or 2 is provided by claims 1-4 as filed. This amendment overcomes the examiner’s clarity objection at section 4 of the communication since antecedent basis for an LCD screen is provided in new claim 3.

Claim 4 has been newly added and specifies that the first display means is a traffic light. Basis for this claim is provided by paragraph [010] of the description. Paragraph [010] is connected with the embodiment of Figure 1 which includes all
of the features of claims 1 and 2. Basis is therefore provided for new claim 4 depending on claim 1 or 2.

Claim 5 specifies a warning pole comprising a warning system according to claim 1. Basis for this amendment is provided by paragraph [012] and Figure 2 which describe and depict a warning pole having all of the features of claim 1.

Claim 5 includes all of the features of claim 1. It is therefore a dependent claim by the definition of R43(4) EPC. The application therefore only includes a single independent claim and thus the objection raised at section 7 of the communication under R43(2) EPC has been overcome.

**Novelty**

Document D1 discloses a sensor 104 for detecting a car exiting from a garage but does not disclose a pavement sensor configured to detect pedestrians approaching a driveway as specified by claim 1.

D1 also fails to disclose a first display means configured to give a warning signal to a driver in the driveway. D1 further fails to disclose control unit configured to activate a pavement sensor in response to the output of the driveway sensor.

For at least these reasons claim 1 is novel over D1.

D2 discloses warning panels 209 and 210 which warn approaching pedestrians of an emergency vehicle. However D2 fails to disclose a first display means being configured to give a warning signal to a driver in a driveway as specified by claim 1. D2 also fails to disclose a control unit configured to activate a pavement sensor in response to the output of a driveway sensor as specified by claim 1.

The second sentence of paragraph [003] of D2 describes a sensor for detecting a vehicle (weight sensor 204) being activated in response to the detection of a pedestrian. This is the reverse of the arrangement specified by claim 1, in which a sensor for detecting pedestrians (the pavement sensor) is activated in response to the output of a sensor for detecting vehicles (the driveway sensor). For at least these reasons claim 1 is novel over D2.

D3 discloses a first sensor 327 and a second sensor 307. The first sensor 327 detects vehicles on the street and not in the driveway (page 1, line 17-19 of D3).
The second sensor 307 detects approaching pedestrians on the pavement (page 1, lines 19-20 of D3). Neither of the sensors disclosed by D3 are therefore configured to detect a vehicle in the driveway as specified of the driveway sensor of claim 1. D3 thus fails to disclose the driveway sensor of claim 1.

D3 also fails to disclose a control unit configured to activate a pavement sensor in response to the output of a driveway sensor.

For at least these reasons claim 1 is novel over D3.

**Inventive Step**

Claim 1 is directed to a warning system configured to warn a driver of a vehicle in a driveway of the presence of pedestrians in the vicinity of the driveway.

D1 is directed to warning pedestrians of the presence of a vehicle (e.g. [004] of D1) and is not at all concerned with warning a driver.

Similarly D2 is directed to warning pedestrians of the emergence of an emergency services vehicle (e.g. title and [001] of D2). D2 does not mention warning a driver of the emergency vehicle.

D3 is directed to generating a signal to a driver to warn him of the presence of traffic or pedestrians (e.g. [003] of D3).

Since D3 is the only prior art document directed to warning a driver, it is the document having the most similar aim and purpose to that of claim 1. D3 therefore represents the closest prior art to the subject matter of claim 1.

As was noted above D3 does not disclose those features places in the preamble of claim 1. The technical effect of these features is to avoid unnecessary activation of components of the warning system thereby reducing electricity consumption of the warning system (page 3, lines 10-12 and lines 28-30 of the description).

The objective technical problem may therefore be taken to be how to reduce the electricity consumption of the warning system of D3.

A skilled person consulting D3 alone, would be taught by [004] of D3 that the running costs of the “Semaphone” system are worth the benefit of continuously
operating the system. The skilled person would not therefore be motivated to attempt to reduce the running costs. Even if a skilled person were to attempt to reduce running costs the only hint that they are given by D3 is that the high running costs are linked to the continuous operation of the system (§004 of D3). The skilled person might therefore attempt to run the system on a discontinuous basis e.g. to turn the system off at quiet times. Even if the skilled person were to do this (despite being taught against reducing power consumption) they would not arrive at the subject matter of claim 1.

D3 gives no further teachings or suggestions which might assist a skilled person in solving the objective technical problem. The skilled person would not therefore arrive at the subject matter of claim 1 without exercising inventive skill. Claim 1 is thus inventive over D3 alone.

The skilled person might consult D2 since it relates to a neighbouring technical field. D2 teaches reducing unnecessary illumination (particularly at night) which might disturb residents and generate light pollution (§002 of D2). D2 does not however teach reducing power consumption of a system. A skilled would not therefore seek to use the teachings of D2 to adapt the system of D3 since D2 does not teach reducing power consumption.

Even if a skilled person were to seek use the apparatus taught by D2, D2 teaches warning pedestrians of the presence of emergency vehicles and not with warning a driver of the presence of pedestrians. A skilled person would therefore think that the teachings of D2 and D3 are incompatible with each other.

D2 does teach an inactive mode which prevents unnecessary illumination of warning panels (§003 of D2). However the inactive mode of D2 involves deactivating a sensor (weight sensor 203) for detecting vehicles when no pedestrians are detected. This is the opposite of the subject matter of claim 1 which specifies activating a sensor for detecting pedestrians in response to a sensor detecting vehicles.

Even if a skilled person were to adapt the disclosure of D3 to include the inactivate mode taught by D2 they would arrive at a very different system to the warning system of claim 1. In particular the resulting system would not include a
control unit configured to activate a pavement sensor in response to the output of a driveway sensor.

For at least these reasons an inventive step would be required for a skilled person combining D3 and D2 to arrive at the subject matter of claim 1. Claim 1 is thus inventive over D3 and D2.

The skilled person might consult D1 in attempting to solve the objective technical problem. D1 teaches a simple sensor system and safety mirrors 150, 160. The skilled person seeking to reduce power consumption might include the safety mirrors taught by D1 since they do not consume any power. The skilled person might then seek to turn the system of D3 off at quiet times and instead rely on the safety mirrors taught by D1. Such a system would not however fall within the scope of claim 1 since it would not include the features of the characterising portion of claim 1.

There are no other teachings in D1 which might assist the skilled person in solving the objective technical problem. An inventive step would therefore be required for a skilled person consulting D1 and D3 to arrive at the subject matter of claim 1.

Claim 1 is thus inventive over a combination of D3 and D1.

Claims 2-5 are novel and inventive at least by virtue of their dependency from claim 1.

All of the objections have been overcome. In the unlikely event that an adverse decision is contemplated, oral proceedings are hereby requested.

Yours faithfully

X
Claims

1) Warning system for a driveway crossing (3, 13), comprising:
   - a control unit (5)
   - a pavement sensor (7, 8, 17) connected to the control unit (5) and configured to detect pedestrians on a pavement (2, 12) approaching the driveway crossing (3, 13),
   - a first display means (6, 16) connected to the control unit (5), the control unit (5) being configured so that the first display means (6, 16) gives a warning signal to the driver of a vehicle in the driveway (1, 11) in response to the output of the pavement sensor (7, 8, 17)
characterised in that the warning system further comprises a driveway sensor (4, 14) configured to detect a vehicle in the driveway (1, 11) approaching the driveway crossing (3, 13), wherein the driveway sensor (4, 14) is connected to the control unit (5) and wherein the control unit (5) is configured to activate the pavement sensor (7, 8, 17) in response to the output of the driveway sensor (4, 14).

2) Warning system according to claim 1 comprising:
   a second display means (9) configured to warn pedestrians on the pavement (2, 12) that a vehicle is exiting from the driveway (1, 11).

3) Warning system according to claim 1 or 3 wherein the first display means is an LCD screen and wherein the control unit (5) is an integral component of the LCD screen (6).

4) Warning system according to claim 1 or 2, wherein the first display means is a traffic light configured to indicate the detection of a pedestrian by a red light.

5) A warning pole (20) comprising a warning system according to claim 1.
Examination Committee I: Paper B - Marking Details - Candidate No

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Examination Committee I agrees on 85 points and recommends the grade PASS.