withers & rogers LLP
European & Chartered Patent Attorneys
Trade Mark Attorneys

Withers & Rogers LLP, 4 More London Riverside, London, SE1 2AU
Tel: +44 (0)20 7940 3600 Fax: +44 (0)20 7378 9680
E-Mail: admin@withersrogers.com Web: www.withersrogers.com

Our Ref: P338984EP-PCTDIV2DIV2/MPG

Your Ref:

European Patent Office
D-80298
München
Germany

29 July 2019

SIGNED AND SENT ELECTRONICALLY

Writer's Telephone: +44 117 925 3030

Dear Sirs

European Patent Application No. 18195407.4
based on PCT/US2006/061370
Unlocking A Device By Performing Gestures On An Unlock Image
Apple Inc.

This is a response to the Communication pursuant to Rules 70(2) and 70a(2) EPC dated 4 February 2019. We confirm that the applicant wishes to proceed to substantive examination of this application.

The following comments are provided in response to the opinion accompanying the European search report dated 4 December 2018.

Amendments and basis

We enclose a complete set of revised claims 1-8 on pages 55-56 intended to replace the claims currently on file. A reference copy of the revised claims is also enclosed, on which amendments with respect to the claims on file are indicated.

Claim 1 has been amended to specify that the method comprises transitioning from a first user-interface state to a second user-interface state when the end of the predefined gesture is detected. Basis for this amendment may be found for example in paragraphs [0006], [0048], and [0081] of the application as filed, from which it is clear that the lock/unlock states are just one example of the user-interfaces that the present invention can be used with.

The dependent claims have been amended to conform to the revised claim 1.

New dependent claim 6 has been added. Basis for this claim may be found for example in paragraph [0006]. Subsequent claims and references to claims have been renumbered accordingly.

Reference numerals have been included in the claims in accordance with Rule 43(7) EPC.

Added matter (Article 76 EPC)

The examiner objected that the feature of detecting a gesture at a location remote from an unlock image, as specified in present claim 1, lacks basis in the parent application. However, the parent application provides clear basis for this feature, for example in paragraph [0078]: "the user may unlock the device 400 by making contact anywhere on the touch screen". Similarly paragraphs [0056]-[0062] describe interacting with any part of the touch screen. This feature of claim 1 therefore does not add matter.

The examiner also objected that claim 1 did not include a feature of transitioning to second user-interface state. Claim 1 has been amended to include such a feature, as described above. As such, the examiner's objection has been overcome.

Clarity (Article 84 EPC)

The examiner objected that claim 1 was lacking an essential feature, as it did not specify transitioning to a locked state. In particular, the examiner asserted that "[t]he current application is concerned with the problem of *increasing user friendliness of unlocking devices*". However, this is an overly narrow characterisation of the present invention. The present invention, as is clear from paragraph [0006], is directed to transitioning devices between user-interface states, of which lock/unlock states are but one example. As such, transitioning specifically to an unlock state is not an essential feature. Claim 1 has been amended to specify transitioning between first and second user-interface states, and therefore defines all the essential features of the invention.

The examiner also objected to the feature of "continuously modifying the unlock image on the touch-sensitive display in accordance with the predefined gesture", alleging that "[t]he skilled reader would have difficulties in understanding how..."modifying" and the "predefined gesture" relate to each other". However, it would be readily apparent to the skilled person reading the claim that "modifying...in accordance with" means that there is a relationship between the gesture and a change in the image. There are many ways in which the unlock image may be modified according to such a relationship, but this does not render the claim unclear - the skilled person would have no problem understanding the claim or the limitations it defines. In particular, the requirement that the modification is "continuous" shows that there must be some relationship over a period of time between the gesture and the unlock image. Thus it is clear that there is a relationship between progress of a gesture over time and the unlock image; the ambiguity suggested by the examiner in paragraph 3.3 of the search opinion does not exist.

The examiner also alleged that this feature lacks support in the description. An objection of lack of support requires that there are "well-founded reasons for believing the skilled person would be unable, on the basis of the information given in the application as filed, to extend the particular teaching of the description to the whole of the field claimed using routine methods of experimentation or analysis" (Guidelines, F IV 6.3, emphasis added). It would clearly be within the capability of the skilled person, especially with routine experimentation, to determine a particular way of continuously modifying an unlock image based on a detected gesture. Indeed, the description provides a number of embodiments of such implementations, for example in paragraphs [0062]-[0070] and [0087]-[0090]. Thus claim 1 is clearly supported by the description.

Therefore claim 1 meets the requirements of Article 84 EPC.

Inventive step (Article 56 EPC)

The examiner identified D1 as the closest prior art. As admitted by the examiner, D1 does not disclose detecting a gesture "at a location remote from an unlock image", or "continuously modifying the unlock image...in accordance with the predefined gesture", as required by claim 1.

The examiner alleged that these features do not make a technical contribution, and so asserted that claim 1 lacked any technical difference over D1. The examiner seemingly treated the features in isolation of each other, and in isolation from the rest of the claim (paragraphs 4.5 and 4.6).

However, as discussed in the Guidelines at G VII 5.4, all features which, in the context of the invention as a whole, contribute to providing a technical effect must be considered technical.

Considering the features in context then, claim 1 provides a method in which the device guides the user in interacting with device to transition from a first user-interface state to a second user-interface state of the device. The user is able to perform the gesture anywhere on the device's screen, but is still guided in the interaction by the continuous modification of the unlock image. Performing the gesture anywhere on the screen means the user can be less precise in the positioning of the gesture; and allows the user to see the changing unlock image to confirm that gesture progress is being made. Thus the two distinguishing features work together to guide continued human-machine interaction, which is a recognised technical effect (Guidelines, G II 3.7).

The examiner particularly alleged that the modification of the unlock image does not have a technical effect as "an embodiment in which a blinking text (i.e. it is continuously modified) asked the use[r] to "Sweep to unlock" would fall under the scope of the claim" (paragraph 4.5 of the opinion). We note that to fall within the scope of the claim, the modification of the text, i.e. the blinking, would have to be in accordance with the gesture. Such an embodiment would still inform the user that the gesture was progressing and being detected by the device - if the blinking stopped the user would know that the last movement of the gesture was not detected or was not the correct gesture. The lack of blinking may inform the user, for example, that the gesture needs to be restarted. Thus the examiner's embodiment would still guide continued human-machine interaction, and so still has a technical effect.

The examiner also argued (in paragraph 4.8) that allowing better visibility of the unlock image would not be a technical effect, as "the visibility of the feedback provided by the unlock image depends on the exact extent of "remote" and the size relationship of the finger and the input region". However, such reasoning amounts to *reductio ad absurdum*; not a technically meaningful reading of the claim. Indeed, any invention can be reduced in this way to an edge case; but that does not render them incapable of having a technical effect. Moreover, any increase in distance between the gesture location and the unlock image will allow increased visibility of the unlock image - it may be small for small "remote" distances, but is still a technical effect. The "exact extent of "remote"" is an implementation detail to be selected by the skilled person; to require a precise limitation in the claim would be impractical and unfair to the applicant. In any case, the examiner has ignored the effect of allowing the user to be less precise about the positioning of the gesture, whilst still providing feedback to guide the interaction. Facilitating a user's interaction with a device is a technical effect.

Therefore the distinguishing features of claim 1 do have a technical effect, and cannot be dismissed. D1 provides no motivation to the uninventive skilled person to implement these features. Moreover, the examiner has not cited any documents which disclose detecting a gesture remote of an unlock image which is continuously modified in accordance with the gesture, and so there are no documents which could be combined with D1 to arrive at the method of claim 1.

Claim 1 is therefore inventive over the cited documents.

A similar argument applies for independent claims 7 and 8. The dependent claims are inventive at least because of their dependence upon the independent claims.

Concluding remarks

If there are any points which the examiner wishes to raise which could be dealt with over the telephone, I should be grateful if the examiner would contact me. In the unlikely event that the examiner contemplates refusing this application, I should appreciate the opportunity of an informal interview either by telephone or in person beforehand, and as a precaution, I hereby request Oral Proceedings in accordance with Article 116 EPC.

Yours faithfully

M P Gillard
Professional Representative
WITHERS & ROGERS LLP