**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

GREE, INC.,	§	Case No.: 2:19-cv-00161
	§	
Plaintiff,	§	
	§	
v.	§	
	§	
SUPERCELL OY,	§	
	§	
Defendant.	§	

FIRST AMENDED COMPLAINT

Plaintiff GREE, Inc., ("GREE" or "Plaintiff") files this First Amended Complaint

against Supercell Oy ("Supercell" or "Defendant") pursuant to Federal Rule of Civil Procedure

15(a)(1)(A). In this First Amended Complaint, GREE asserts U.S. Patent Nos. 10,279,262 (the

"Sano '262 patent") and 10,286,318 (the "Sano '318 patent") against Supercell's "Clash of

Clans" and "Boom Beach" games. GREE alleges as follows:

PARTIES

1.   Plaintiff GREE is a corporation organized under the laws of Japan with a

principal place of business at 6-10-1, Roppongi, Roppongi Hills Mori Tower Minato-Ku,

Tokyo, Japan.

2.   On information and belief Defendant Supercell is a corporation organized under

the laws of Finland, with a principal place of business at Itämerenkatu 11-13, Helsinki,

Uusimaa, 00180, Finland.

JURISDICTION AND VENUE

3.   This action arises under the patent laws of the United States, Title 35 of the

United States Code. Accordingly, this Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

4.   This Court has personal jurisdiction over Supercell because it has, directly or through agents and/or intermediaries, committed acts within Texas, including within this District, giving rise to this action and/or has established minimum contacts with Texas and this District such that the exercise of jurisdiction would not offend traditional notions of fair play and justice.

5.   On information and belief, Supercell regularly conducts business in Texas, including this District, and purposefully avails itself of the privileges of conducting business in Texas. In particular, on information and belief, Supercell, directly and/or through its agents and/or intermediaries, makes, uses, imports, offers for sale, sells, and/or advertises its products and affiliated services in Texas, including this District. Defendant has placed, and continues to place, infringing products into the stream of commerce, via an established distribution channel, with the knowledge and/or understanding that such products are sold in the United States including in Texas and specifically including this District.

6.   Alternatively, and/or in addition, this Court has jurisdiction over Supercell under Federal Rule of Civil Procedure 4(k)(2). This action arises from actions of Supercell directed toward the United States, including (1) committing at least a portion of the infringing acts alleged herein and (2) regularly transacting business, soliciting business, and deriving revenue from the sale of goods and services, including infringing goods and services, to individuals in the United States. Therefore, Supercell has purposefully availed itself of the benefits of the United States, including the Eastern District of Texas, and the exercise of jurisdiction over Supercell would not offend traditional notions of fair play and substantial justice.

7.   Venue is proper in this District pursuant to 28 U.S.C. § 1391(c), as Supercell is

not a resident of the United States.

GREE AND THE ASSERTED PATENTS

8.   GREE is a global social media company that provides mobile content and

services, including games, entertainment, media, advertising, and investment services.

9.   Originally founded in 2004, GREE has long sought to develop and create

innovative solutions in gaming and social networking. GREE has sought to protect its

investments in innovation by obtaining patent protection. GREE currently hold patents

covering various improvements in digital and gaming technology in countries throughout the

world, including the United States.

10.   GREE is the owner by assignment of all right, title, and interest in and to the

Sano '262 patent entitled "Communication System, Method for Controlling Communication

System, and Program" which duly and legally issued at 12:00 a.m. Eastern Daylight Time on

May 7, 2019. A true and correct copy of the Sano '262 patent is attached to this First Amended

Complaint as Exhibit A.

11.   GREE is the owner by assignment of all right, title, and interest in and to the

Sano '318 patent entitled "Communication System, Method for Controlling Communication

System, and Program" which duly and legally issued at 12:00 a.m. Eastern Daylight Time on

May 14, 2019.

12.   The Sano '262 patent and Sano '318 patent (collectively, "the Patents-in-Suit")

share a common specification.

13.   The Patents-in-Suit describe and claim innovative communication systems and

methods for controlling computer-implemented "'[c]ity building simulation games" that "allow

users to create a city environment within the game and develop the city." Sano '262 Patent at

1:24-25. The Patents-in-Suit explain that in conventional city-building games, "the user has

numerous options, and the game has no final objective. Therefore, in order to develop the city,

the user does not always know what action to take next." *Id.* at 1:42-45. The Patents-in-Suit

further explain that even where the city-building game may "include a notification function to

prompt the user to respond to cases such as the occurrence of a problem in the city…[t]his

notification … does not contribute to the development of the city." *Id.* at 1:46-50.

14.   To solve this problem, the Patents-in-Suit propose innovative communication

systems and methods of providing advisory information to a user in a city-building game

"[b]ased on a variety of [numerical] parameters indicating a status of a space formed by a user

of each communication terminal within a game playable over the communication system…"

Id. at 1:65-2:1.

15.   The claims of the Patents-in-Suit cannot be performed without a computer. The

claims solve a problem that is specific to computer implemented city-building games. In such

city-building games the user requires real-time advice "to prevent a situation in which the user

does not know what to do by advising the user on what action to take next." *Id.* at 1:56-58. The

Patents-in-Suit create solutions for providing advice to users based on a variety of numerical

parameters on what action to take next in the city-building game, which is an improvement in

computer-specific technology that cannot be implemented outside of the context of a computer-

implemented city-building game.

16.   The use of communication-systems to provide advice of what to do next in city-

building games based on numerical parameters was not routine, well-understood, or

conventional in the art of city-building games at the time of the invention of the Patents-in-Suit.

The claimed system and method for using numerical parameters to identify an object to be built next in the virtual game space represented a significant advance over conventional city-building computer games and "prevent[s] a situation in which the user does not know what to do by advising the user on what action to take next." *Id.* at 3:8-10.

17.   These improvements over prior art and conventional gaming devices, systems, and methods represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the inventions of the asserted claims, when such claims are viewed as a whole and in ordered combination, are not routine, well-understood, conventional, generic, existing, commonly used, well-known, previously known, or typical.

GENERAL ALLEGATIONS

18.   Defendant Supercell makes, uses, sells, offers for sale, and/or imports into the United States gaming systems, software, or methods for controlling games in which users build collections of structures, including Clash of Clans and Boom Beach.

19.   Clash of Clans and Boom Beach operate on computers and mobile devices, including those with iOS and Android operating systems.

20.   Defendant Supercell operates, places into service, or otherwise controls a plurality of servers worldwide, including in the United States, on which Supercell operates, and its customers and other users use, software related to Clash of Clans and/or Boom Beach and on which Supercell stores user data associated with the product.

21.   Clash of Clans and Boom Beach each have millions of registered users worldwide, including in the United States and Texas.

22.   Supercell has knowledge of the Sano '262 patent at least since the filing date of the original Complaint, and its continued infringement is willful.

23.   Supercell has knowledge of the Sano '318 patent at least since the filing date of this First Amended Complaint, and its continued infringement is willful.

24.   GREE's infringement theories presented below are exemplary, and do not necessarily detail every manner in which Supercell's products infringe the Patents-in-Suit, nor do so for each product that infringes. GREE will provide additional details in its infringement contentions.

COUNT I—Infringement of the Sano '262 Patent

25.   GREE re-alleges and incorporates by reference each and every allegation contained in the paragraphs above as if fully set forth herein.

26.   Supercell directly infringes at least representative claim 1 of the Sano '262 patent by, without authority, making, using, importing, selling, or offering to sell Clash of Clans and Boom Beach in the United States, in violation of 35 U.S.C. § 271(a). For example, claim 1 of the Sano '262 patent recites:

1. [preamble] A server comprising:

[a] a communication unit configured to communicate with a plurality of communication terminals for a plurality of users;

[b] a memory configured to store one or more parameters related to a status of a virtual space in a game for each user; and

[c] a controller configured to make a determination of a facility which has not been arranged in a first virtual space of a first user during the game, the determination being made prior to selection of the facility by the first user and made based on the one or more parameters related to the status of the first virtual space of the first user, wherein the one or more parameters include a level of the first virtual space and a number of facilities already arranged in the first virtual space,

[d] generate advisory information related to the facility, the advisory information encouraging the first user to arrange the facility as a next action in order to contribute to development of the first virtual space,

[e] transmit the generated advisory information related to the facility to a first communication terminal of the first user for display of the advisory information, and

[f] cause a first screen including the generated advisory information to be displayed on the first communication terminal.

27.   For example, and by way of exemplary illustration, Supercell's Clash of Clans infringes as follows. To the extent the preamble is found to be limiting, Clash of Clans satisfies the preamble of claim 1 because Supercell manages servers that control Clash of Clans. *See, e.g.* https://aws.amazon.com/solutions/case-studies/supercell/.

28.   Clash of Clans satisfies element [1a] because on information and belief the Clash of Clans servers include a "communication unit" in the form of software that communicates with multiple "communication terminals." *See, e.g.* https://aws.amazon.com/solutions/case-studies/supercell/. The "communication terminals" are computers used by users such as handheld devices with Android and iOS operating systems. *See, e.g.*, https://itunes.apple.com/us/app/clash-of-clans/id529479190?mt=8; https://play.google.com/store/apps/details?id=com.supercell.clashofclans&hl=en_US. The computers are equipped with local memory and local data storage for the user. When Clash of Clans is active on such a computer, Clash of Clans communicates with the computer by sending information displayed on the screen and sounds to be produced by the computer, with information being sent to and received by a remote server controlled by Supercell, and by moving information in and out of local memory and local data storage on the computer.

29.   Clash of Clans satisfies element [1b] because Clash of Clans servers include memory that stores multiple parameters related to a status of a virtual space in a game for each user in order to display the information according to those parameters. For example, as illustrated in Figure 1 below, a virtual space in a game for each user corresponds to "Home Village" and parameters related to the status of this virtual space include the "level" of the "town hall." Further parameters related to the status of this virtual space include "gold,"

"elixir," "dark elixir," and "gem" quantities, and the number and type of objects arranged in the virtual space.

Figure 1: Illustrating elements of [1b] in the "Home Village"

30.   Clash of Clans satisfies element [1c] because the server has a controller which makes a determination of a facility not arranged in the first virtual space of a first user during a game, by identifying objects not arranged in the virtual space. As illustrated in Figure 2 below, the Clash of Clans server identifies objects available for arrangement in the virtual space, representing objects not yet arranged in the first virtual space. In Option 1 of Figure 2, different arrangement suggestions are provided based on multiple parameters: the level of the town hall, and the number of objects of each type already arranged in the virtual space. In Option 2 of Figure 2, different arrangement suggestions are provided based on multiple parameters including the level of the town hall, and the number of objects of each type already arranged in the virtual space. In each option of Figure 2 several objects are presented for possible

arrangement in the virtual space before the user selects which facility to arrange in the virtual

space. In each option of Figure 2, several objects are also presented for possible arrangement

where there are more objects of that type that can be arranged that are not yet arranged in the

virtual space (one parameter related to status that includes the number of facilities already

arranged in the first virtual space), where the user has a sufficient level town hall (another

parameter related to status that includes the level of the virtual space), and in the case of Option

2, where the user has sufficient gold, elixir, dark elixir, or gems (additional parameters) at his

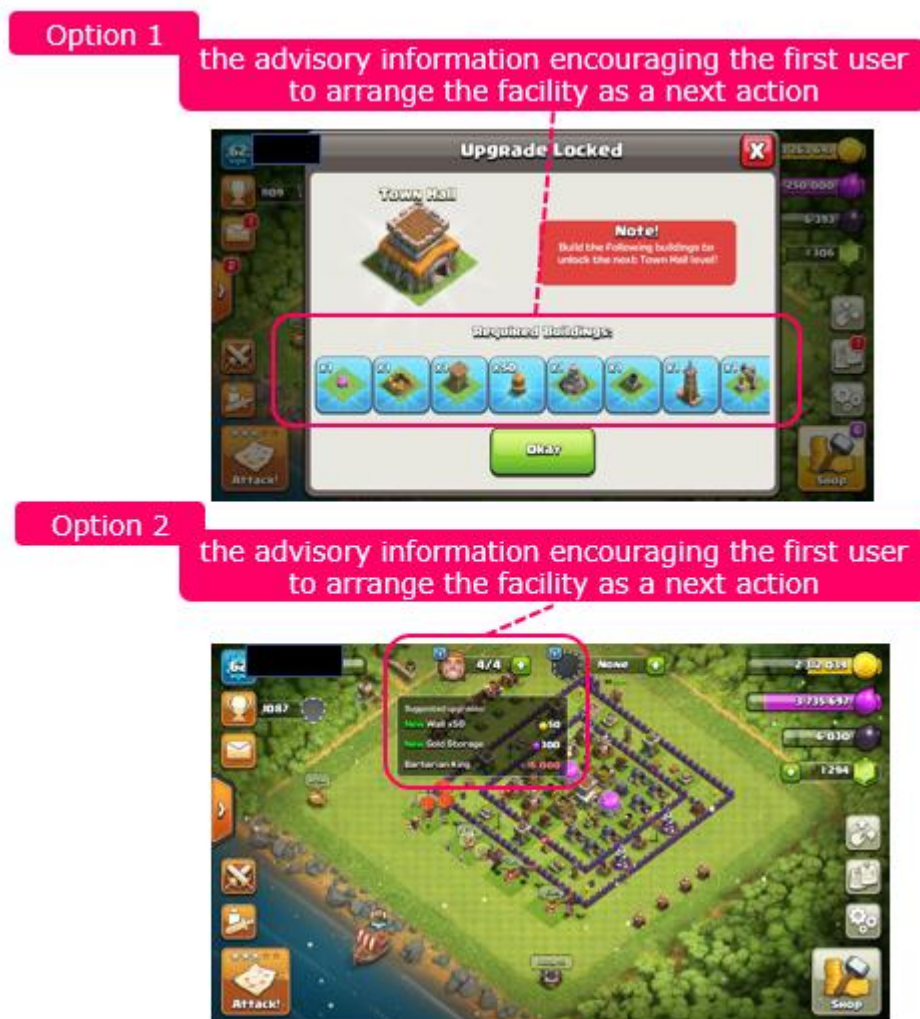disposal to pay the cost to arrange the facility in the virtual space.

Figure 2: Illustrating elements of [1c], [1d], [1e], and [1f]

31.   Clash of Clans further satisfies element [1c] because the server transmits this information to the communication terminal (the user's phone or tablet) for display. In Figure 2, Option 2, for example where there are insufficient quantities of gold, elixir, dark elixir, or gems, the cost amount is indicated in red instead of white. Thus where the amount is indicated in white, it is available for arrangement. In Figure 2, Option 2, a small number of "Suggested" objects for arrangement are provided among the many possible objects that a user could arrange next.

32.   Clash of Clans satisfies element [1d] because the server generates advisory information related to the facility that encourages the user to arrange the facility as a next action. As illustrated in Figure 2 above, the server chooses the facilities to recommend for arrangement based on the parameters noted above, including town hall level and facilities already arranged in the virtual space. In Option 2, the user is further encouraged to choose objects for arrangement based on color signaling to indicate that the user may arrange the object in the virtual space.

33.   Clash of Clans satisfies element [1e] and [1f] because the server transmits the advisory information to the communication terminal (the user's phone or tablet) for display. In Option 2, for example where there are insufficient quantities of gold, elixir, dark elixir, or gems, the cost amount is indicated in red instead of white. Thus where the amount is indicated in white, it is available for arrangement. In Option 1 different arrangement suggestions are provided based on two numerical parameters: the level of the town hall, and the number of objects of each type already arranged in the virtual space. In Option 2, different arrangement suggestions are provided based on multiple parameters including the level of the town hall, and the number of objects of each type already arranged in the virtual space.

34.   The advantages of the server described in claim 1 of the Sano '262 patent are also illustrated by Supercell's support website on Clash of Clans (for example: https://supercell.helpshift.com/a/clash-of-clans/?p=web&s=buildings-upgrades&f=how-does-the-builder-menu-work&l=en). Here, Supercell confirms that Clash of Clans suggests particular objects to arrange next in the virtual space: "The Builder Menu allows Chiefs to be smarter with the resources that they have, especially after moving to a new Town Hall level. Following the suggested upgrades are meant to make the transition to a new Town Hall level smoother."

35.   Defendant Supercell also indirectly infringes one or more claims of the Sano '262 patent within the United States by inducement under 35 U.S.C. § 271(b). Since at least the filing date of this complaint, Defendant Supercell has knowingly and intentionally induced Clash of Clans and Boom Beach users to directly infringe at least claim 1 of the Sano '262 patent, *inter alia*, by (1) providing instructions or information, in its support website, (for example: https://supercell.helpshift.com/a/clash-of-clans/?p=web&s=buildings-upgrades&f=how-does-the-builder-menu-work&l=en) and by providing videos such as those at https://www.youtube.com/user/supercellgames/channels encouraging users to play Clash of Clans and/or Boom Beach in an infringing manner, including the use of Clash of Clans and/or Boom Beach in the manner described in the foregoing paragraphs, which are expressly incorporated herein and (2) touting these infringing uses of Clash of Clans and Boom Beach in advertisements including but not limited to those on their websites and other mobile app marketplace websites.

36.   GREE has been and continues to be injured by Defendant Supercell's infringement of the Sano '262 patent. GREE is entitled to recover damages adequate to

compensate it for Defendant Supercell's infringing activities in an amount to be determined at

trial but in no event less than a reasonable royalty.

37.   Unless enjoined by this Court, Defendant Supercell's acts of infringement will

continue to damage GREE irreparably.

38.   Defendant Supercell's infringement of the Sano '262 patent has been willful and

deliberate. Defendant Supercell has known of the Sano '262 patent at least since the filing of

the original Complaint in this case, and its infringement thereof and continued its unlawful

actions nevertheless. GREE is therefore entitled to increased damages under 35 U.S.C. § 284

and attorneys' fees and costs under 35 U.S.C. § 285.

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COUNT II—Infringement of the Sano '318 Patent

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39.   GREE re-alleges and incorporates by reference each and every allegation

contained in the paragraphs above as if fully set forth herein.

40.   Supercell directly infringes at least representative claim 1 of the Sano '318

patent by, without authority, making, using, importing, selling, or offering to sell Clash of

Clans and Boom Beach in the United States, in violation of 35 U.S.C. § 271(a). For example,

claim 1 of the Sano '318 patent recites:

> 1. [preamble] A server comprising:
>
>> [a] a communication unit configured to communicate with a plurality of
>> communication terminals for a plurality of users;
>>
>> [b] a memory configured to store a plurality of numerical parameters related to a
>> virtual space in a game for each user; and
>>
>> [c] a controller configured to identify, based on at least two numerical parameters of
>> the plurality of numerical parameters related to a first virtual space of a first user, an
>> object which has not been installed in the first virtual space, and
>>
>> [d] transmit information related to the identified object to a first communication
>> terminal of the first user.

41.   By way of exemplary illustration, to the extent the preamble is found to be limiting, Clash of Clans satisfies the preamble of claim 1 because Supercell manages servers that control Clash of Clans. *See, e.g.* https://aws.amazon.com/solutions/case-studies/supercell/.

42.   Clash of Clans satisfies element [1a] because Clash of Clans servers include a "communication unit" in the form of software that communicates with multiple "communication terminals." *See, e.g.* https://aws.amazon.com/solutions/case-studies/supercell/. The "communication terminals" are computers used by users such as handheld devices with Android and iOS operating systems. *See, e.g.*, https://itunes.apple.com/us/app/clash-of-clans/id529479190?mt=8; https://play.google.com/store/apps/details?id=com.supercell.clashofclans&hl=en_US. The computers are equipped with local memory and local data storage for the user. When Clash of Clans is active on such a computer, Clash of Clans communicates with the computer by sending information displayed on the screen and sounds to be produced by the computer, with information being sent to and received by a remote server controlled by Supercell, and by moving information in and out of local memory and local data storage on the computer.

43.   Clash of Clans satisfies element [1b] because Clash of Clans servers include memory that stores numerical information related to a virtual space in a game for each user. For example, as illustrated in Figure 3 below, a virtual space in a game for each user corresponds to "Home Village" and numerical parameters related to this virtual space include the "level" of the "town hall." Further numerical parameters relate to this virtual space include "gold," "elixir," "dark elixir," and "gem" quantities, and the number of objects of each type installed in the virtual space.

Figure 3: Illustrating elements of [1b] in the "Home Village"

44.   Clash of Clans satisfies element [1c] because the server has a controller which identifies objects not installed in the virtual space based on at least two numerical parameters among the plurality of numerical parameters. Figure 1, *infra*, illustrates some of the plurality of numerical parameters in the virtual space. As illustrated in Figure 4 below, the Clash of Clans server identifies objects available for installation based on at least two numerical parameters. In Figure 4, several objects are presented for possible installation based on multiple parameters including the number of objects installed in the virtual space and the numerical level of the user's town hall.
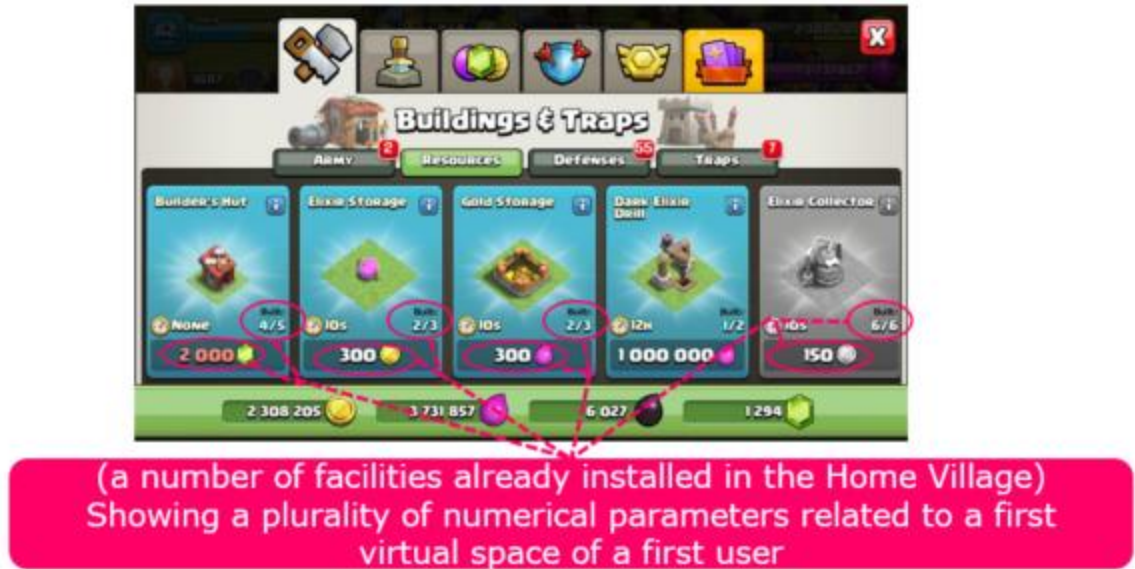
Figure 4: Illustrating the elements of [1c] and [1d]

45.   Clash of Clans satisfies element [1d] because the server transmits this information to the communication terminal (the user's phone or tablet) for display. In Figure 4, for example where the level of town hall numerical parameter is not satisfied, the object is greyed out, and where there are insufficient quantities of gold, elixir, dark elixir, or gems, the cost amount is indicated in red instead of white. Thus where an object is not greyed out and the amount is indicated in white, it is available for installation. Clash of Clans provides additional options of presenting installation suggestions as illustrated in Figure 5 below. In Option 2 of Figure 5, different installation suggestions are provided based on two numerical parameters: the level of the town hall, and the number of objects of each type already installed in the virtual space. In Option 3 of Figure 5, different installation suggestions are provided based on multiple numerical parameters including the level of the town hall and the number of objects installed in the virtual space.
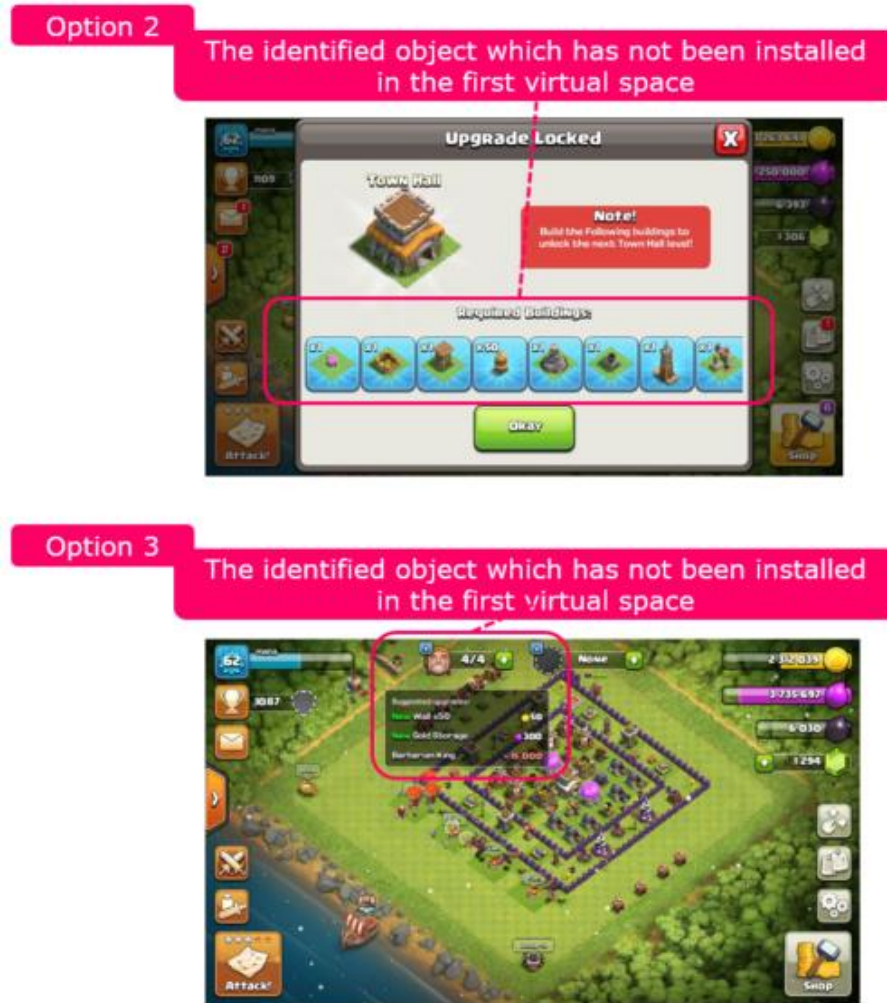
Figure 5: Illustrating the elements of [1d]

46.   The advantages of the server described in claim 1 of the Sano '318 patent are

also illustrated by Supercell's support website on Clash of Clans (for example:

https://supercell.helpshift.com/a/clash-of-clans/?p=web&s=buildings-upgrades&f=how-does-

the-builder-menu-work&l=en). Here, Supercell confirms that Clash of Clans suggests

particular objects to install next in the virtual space: "The Builder Menu allows Chiefs to be

smarter with the resources that they have, especially after moving to a new Town Hall level.

Following the suggested upgrades are meant to make the transition to a new Town Hall level

smoother."

- 16 -

47. Defendant Supercell also indirectly infringes one or more claims of the Sano '318 patent within the United States by inducement under 35 U.S.C. § 271(b). Since at least the filing date of this complaint, Defendant Supercell has knowingly and intentionally induced Clash of Clans and Boom Beach users to directly infringe at least claim 1 of the Sano '318 patent, *inter alia*, by (1) providing instructions or information, in its support website, (for example: https://supercell.helpshift.com/a/clash-of-clans/?p=web&s=buildings-upgrades&f=how-does-the-builder-menu-work&l=en) and by providing videos such as those at https://www.youtube.com/user/supercellgames/channels encouraging users to play Clash of Clans and/or Boom Beach in an infringing manner, including the use of Clash of Clans and/or Boom Beach in the manner described in the foregoing paragraphs, which are expressly incorporated herein and (2) touting these infringing uses of Clash of Clans and Boom Beach in advertisements including but not limited to those on their websites and other mobile app marketplace websites.

48. GREE has been and continues to be injured by Defendant Supercell's infringement of the Sano '318 patent. GREE is entitled to recover damages adequate to compensate it for Defendant Supercell's infringing activities in an amount to be determined at trial but in no event less than a reasonable royalty.

49. Unless enjoined by this Court, Defendant Supercell's acts of infringement will continue to damage GREE irreparably.

50. Defendant Supercell's infringement of the Sano '318 patent has been willful and deliberate. Defendant Supercell has known of the Sano '318 patent at least since filing of this First Amended Complaint, and continued its infringement thereof and its unlawful actions nevertheless. GREE is therefore entitled to increased damages under 35 U.S.C. § 284 and

attorneys' fees and costs under 35 U.S.C. § 285.

PRAYER FOR RELIEF

WHEREFORE, GREE prays for relief in its favor, as follows:

A.   Enter a judgment that Defendant Supercell has infringed the Sano '262 patent;

B.   Grant a permanent injunction restraining and enjoining Defendant and its officers, directors, agents, servants, employees, successors, assigns, parents, subsidiaries, affiliated or related companies, and attorneys from directly or indirectly infringing the Sano '262 patent;

C.   Enter a judgment that Defendant Supercell has infringed the Sano '318 patent;

D.   Grant a permanent injunction restraining and enjoining Defendant and its officers, directors, agents, servants, employees, successors, assigns, parents, subsidiaries, affiliated or related companies, and attorneys from directly or indirectly infringing the Sano '318 patent;

E.   A declaration that the case is exceptional and correspondingly award GREE attorney fees and costs under 35 U.S.C. § 285;

F.   Award damages, enhanced damages and prejudgment interest to GREE under 35 U.S.C. § 284;

G.   Grant such other and further relief as this Court may deem just and proper.

DEMAND FOR JURY TRIAL

GREE hereby demands a jury trial on all issues appropriately triable by a jury.

DATED: May 13, 2019

Of Counsel:

Respectfully submitted,

GILLAM & SMITH, LLP

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