What is Claimed:

1. An egg candling and relocation apparatus, comprising:

a. a user interface;

b. an entrance, an egg candling area, an egg staging area and an exit;

c. supports configured to receive and permit the conveyance of a tray holding a plurality of eggs;

d. one or more conveying means, for conveying the trays from the entrance, to the candling area, to the egg staging area, and to the exit;

e. an egg candling energy means, for directing energy at the plurality of eggs;

f. an energy detection means, for detecting the energy that passes through the plurality of eggs and for converting the detected energy into a signal;

g. a signal processing means, for converting the signal into at least one status signal of one or more eggs;

h. a robot, comprising a working arm equipped with one or more flexible cups, for picking up and relocating eggs based upon the status of said eggs, wherein the robot is mounted onto the apparatus such that a range of motion of said robot permits said working arm and said one or more flexible cups to pick up any of the plurality of eggs while the tray is in the candling area; and

i. a robot controller, an electrical controller, and a pneumatic controller, wherein each controller is electrically connected to the user interface;

j. a four finger pusher, comprising four fingers that is configured to slide beneath the tray and engage with the tray to move the tray laterally, toward the exit, wherein when the four finger pusher slides beneath the tray, the four fingers flexibly and pivotably retract, and after a first set of two fingers clears the edge of the tray, said first set of two fingers pivot up to their resting positions, and wherein after the first set of two fingers return to their resting positions, the four finger pusher reverses direction, engages the first set of two fingers with the tray, thereby moving the tray from the egg staging area to the exit; and wherein the apparatus is optionally equipped with a single-, 6-, or 42-egg remover head.

2. The apparatus of claim 1, wherein the energy is visible light and the detection means is a camera.

3. The apparatus of claim 1, wherein the energy is sound waves and the detection means is a sound sensor.

4. The apparatus of claim 1, wherein the energy is infrared light and the detection means is a camera capable of detecting infrared light.

5. The apparatus of claim 1, wherein the energy is electromagnetic radiation and the detection means is a sensor capable of detecting the electromagnetic radiation.

6. A method for candling, removing and relocating eggs using the apparatus of claim 1, comprising the steps of:

a. selecting an egg status that qualifies an egg for removal and relocation;

b. loading a tray containing a plurality of eggs to be candled into the apparatus;

c. moving the tray into the egg candling area;

d. directing candling energy at the eggs;

e. detecting energy that passes through the eggs;

f. processing the detected energy into a status signal;

g. transmitting the status signal to the robot controller;

h. moving the robot's one or more flexible cups into contact with each egg having the selected egg status;

i. applying subatmospheric pressure such that the one or more flexible cups and the eggs having the selected egg status become reversibly coupled to one another;

j. moving the eggs having the selected egg status to a relocation area;

k. restoring atmospheric pressure, to release the eggs having the selected egg status from the one or more flexible cups;

l. repeating the process of picking up and relocating eggs until all eggs having the selected egg status have been relocated;

m. moving the tray, now lacking the eggs having the selected egg status, to the egg staging area, wherein the steps of moving the tray is accomplished by pneumatic actuators, which are configured to grip and release the tray in response to appropriate pneumatic and/or electrical signals, and which are operably connected to a pneumatic cylinder, which is configured to move the actuators laterally, between the candling area and the egg staging area; and

n. moving the tray from the egg staging area to the exit, wherein the four finger pusher slides beneath the tray and engages with the tray to move the tray laterally, toward the exit.

7. The method of claim 6, further comprising the step of handing the tray off to a downstream in ovo injection machine, which is reversibly tethered to the apparatus.

8. The method of claim 6, wherein when the four finger pusher slides beneath the tray, the four fingers flexibly and pivotably retract, and after a first set of two

fingers clears the edge of the tray, said first set of two fingers pivot up to their resting positions.

9. The method of claim 8, wherein after the first set of two fingers return to their resting positions, the four finger pusher reverses direction, engages the first set of two fingers with the tray, and thereby moves the tray from the egg staging area to the exit.

10. The method of claim 9, wherein once the four finger pusher reaches its distal most range of motion with respect to the anterior end of the apparatus, the four finger pusher reverses direction and moves until a second set of two fingers clear the tray.

11. The method of claim 10, wherein once the second set of two fingers clear the tray, the four finger pusher reverses direction, engages the second set of fingers with the tray, and moves the tray through the exit.

12. The method of claim 11, further comprising the step of handing the tray off to a downstream in ovo injection apparatus.