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(54) COLLAPSIBLE COMPUTER TABLE AND FRAME

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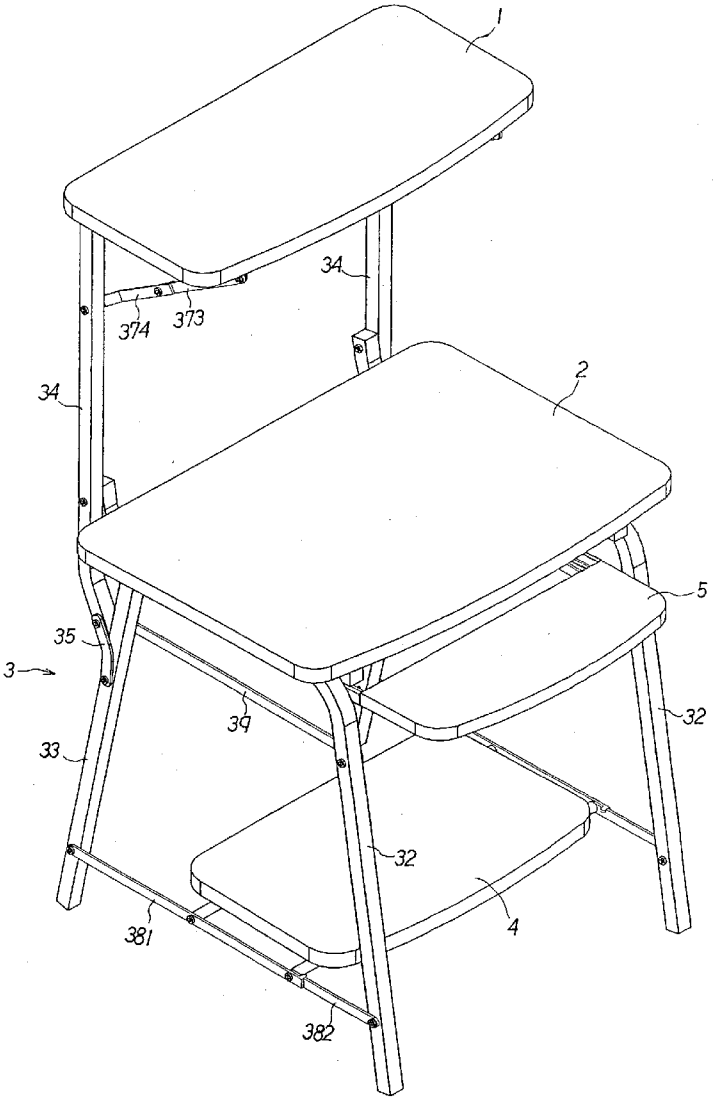
(57) **ABSTRACT**

A collapsible computer table and frame includes two pairs of folding frames, a table board, an upper placing board and a lower placing board. Each folding frame consists of a horizontal frame rod for fixing a table board, a back frame rod with a lower end pivotally connected with an end of the horizontal frame rods, and a front feet and a rear feet pivotally connected with the horizontal frame rods. The back frame rod has its lower end pivotally connected with the horizontal frame rod and the rear feet. The folding connect rods are pivotally connected between the upper placing board to let the upper placing board to swing. The table board is fixed on the horizontal frame rods, folding connect rods are provided between the front and the rare foot, and then the whole computer table and frame can be easily collapsed.



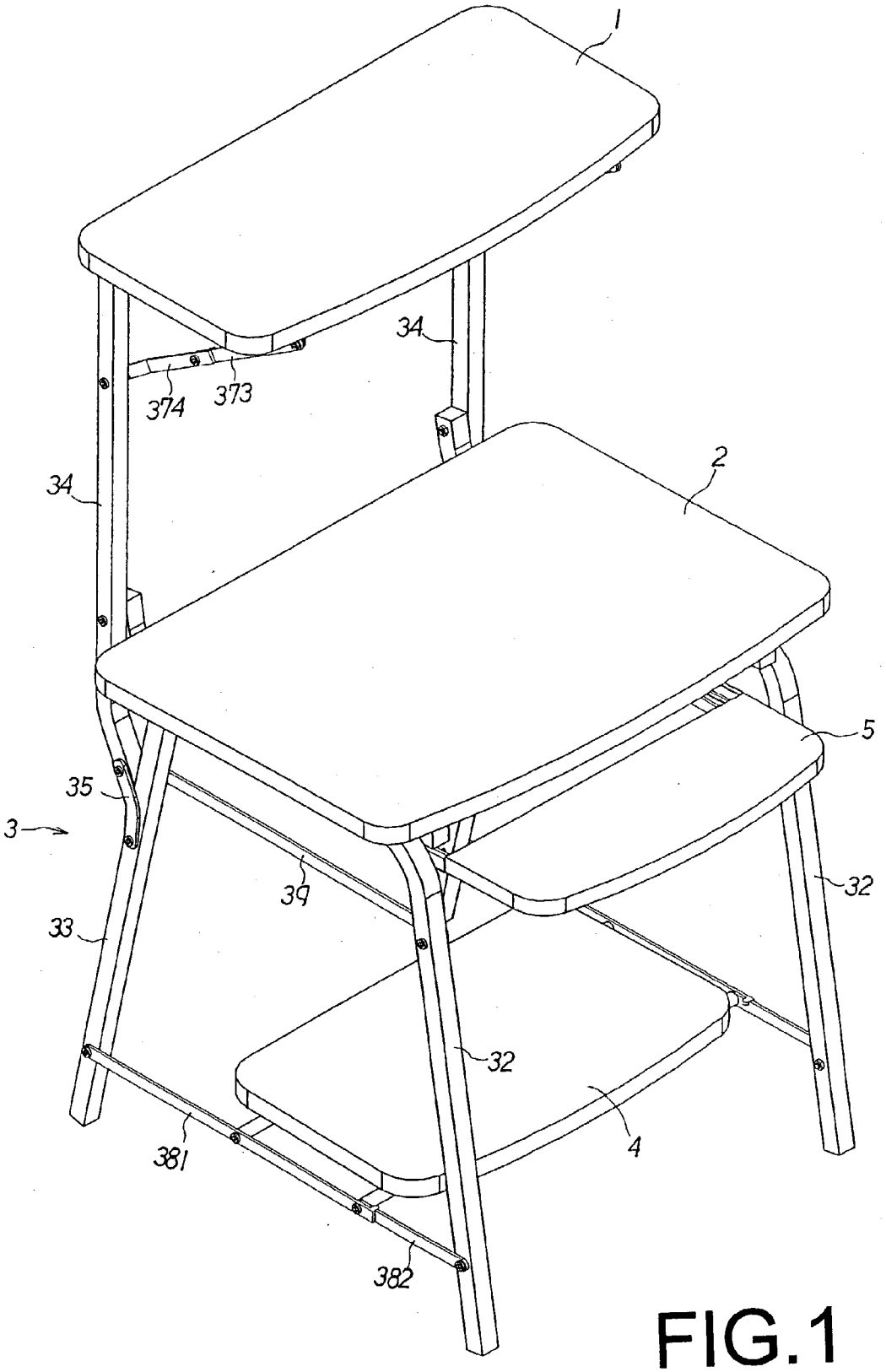


FIG.1

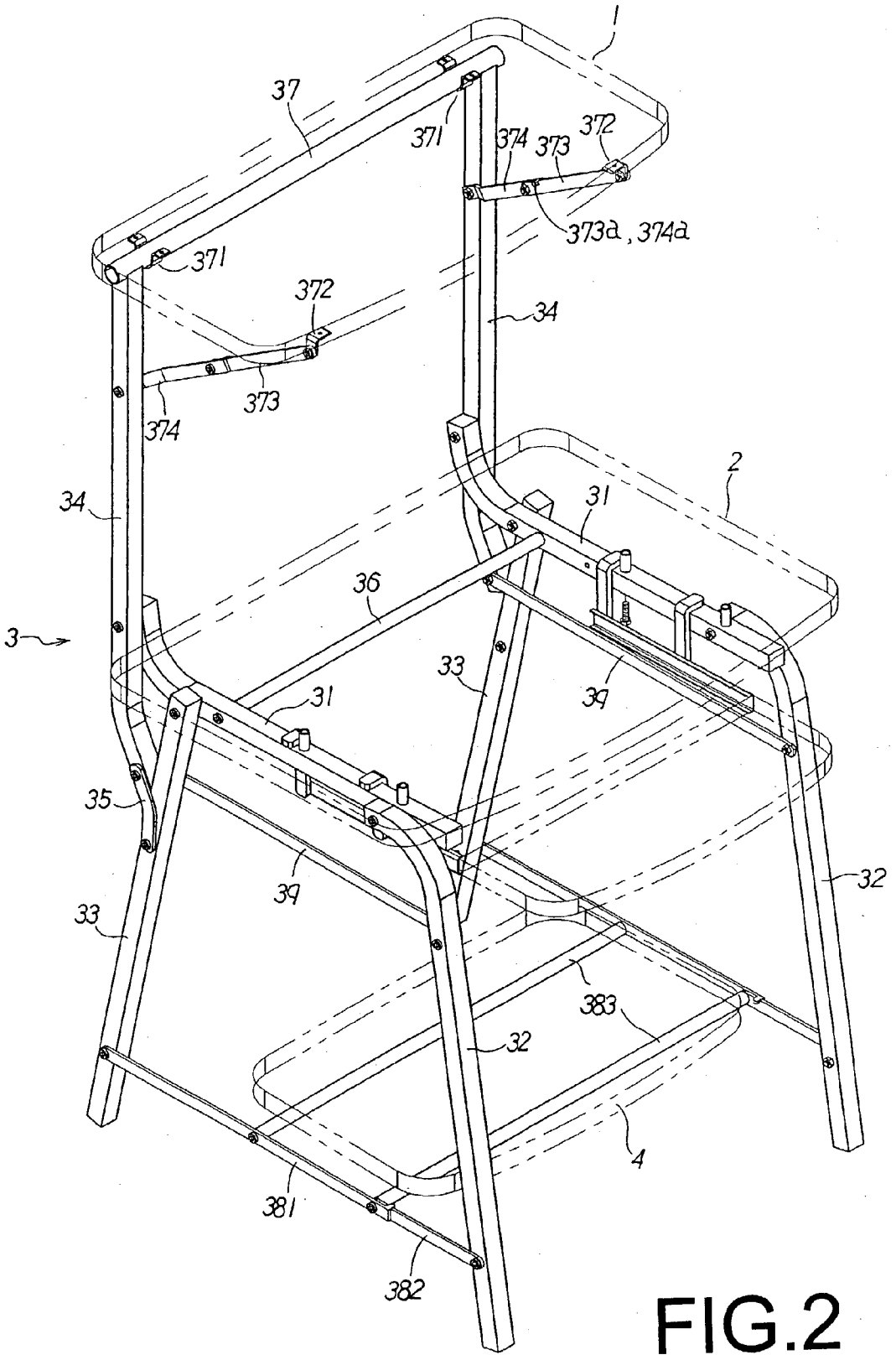

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FIG.2

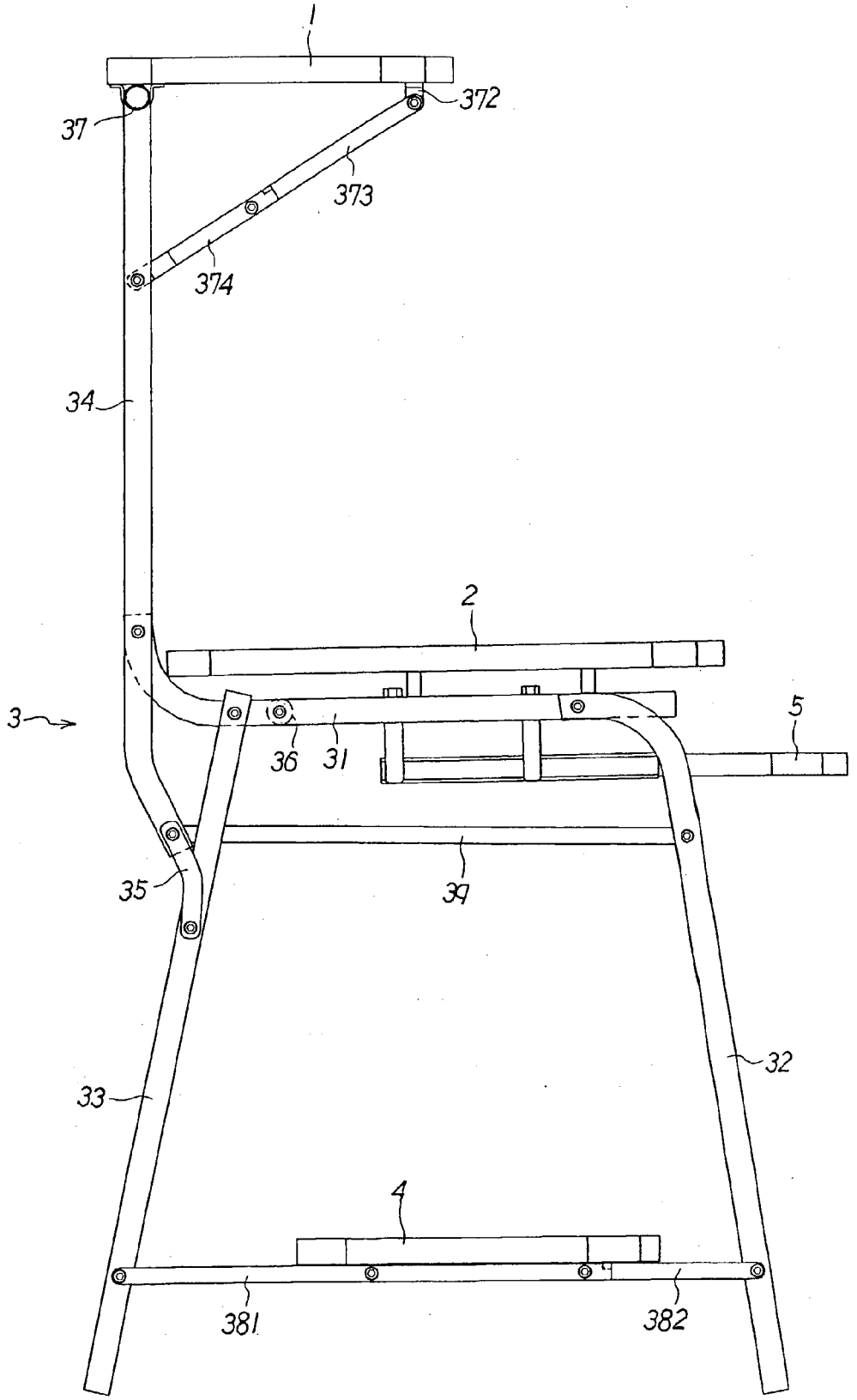

FIG.3

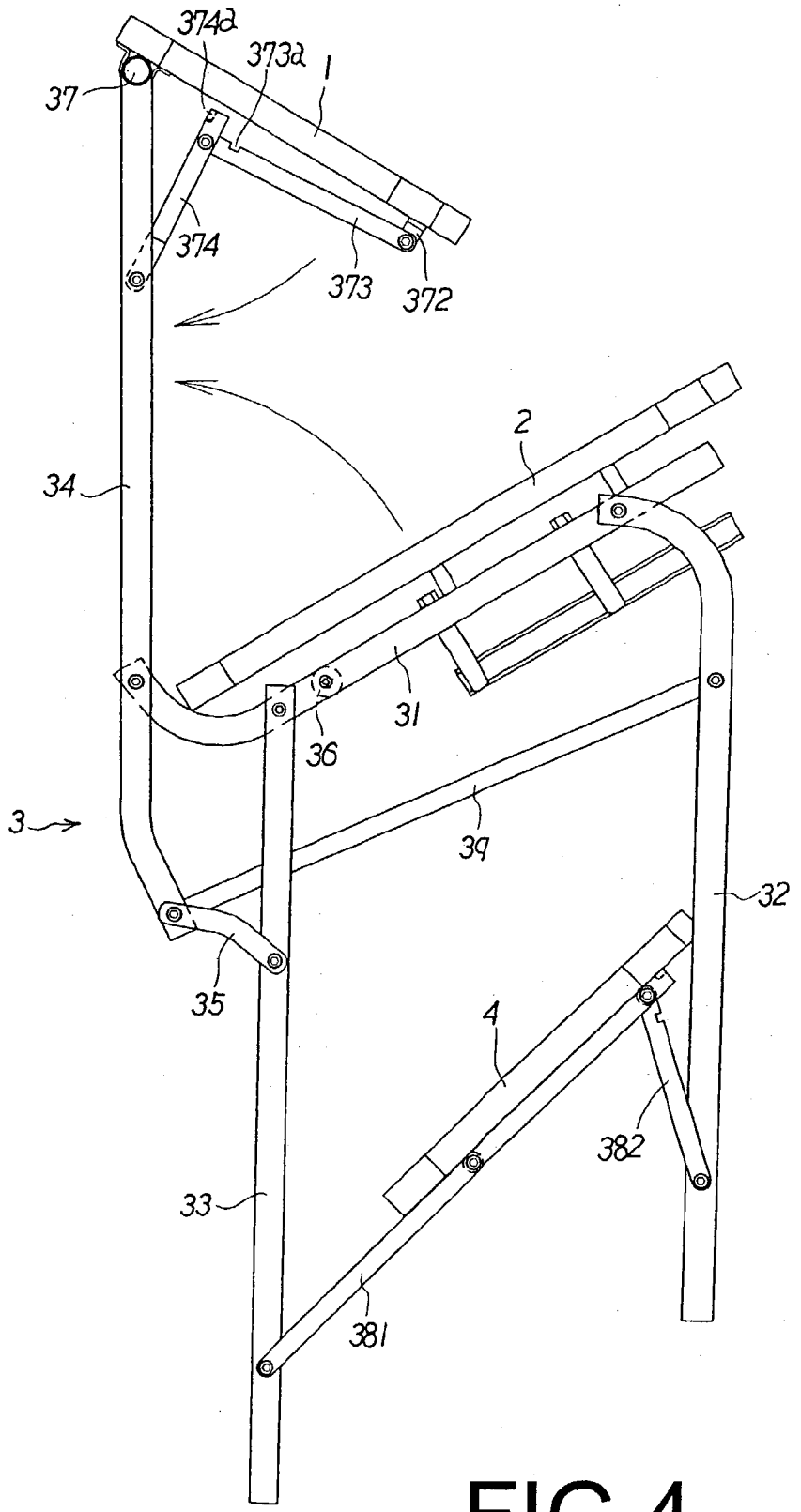

FIG.4

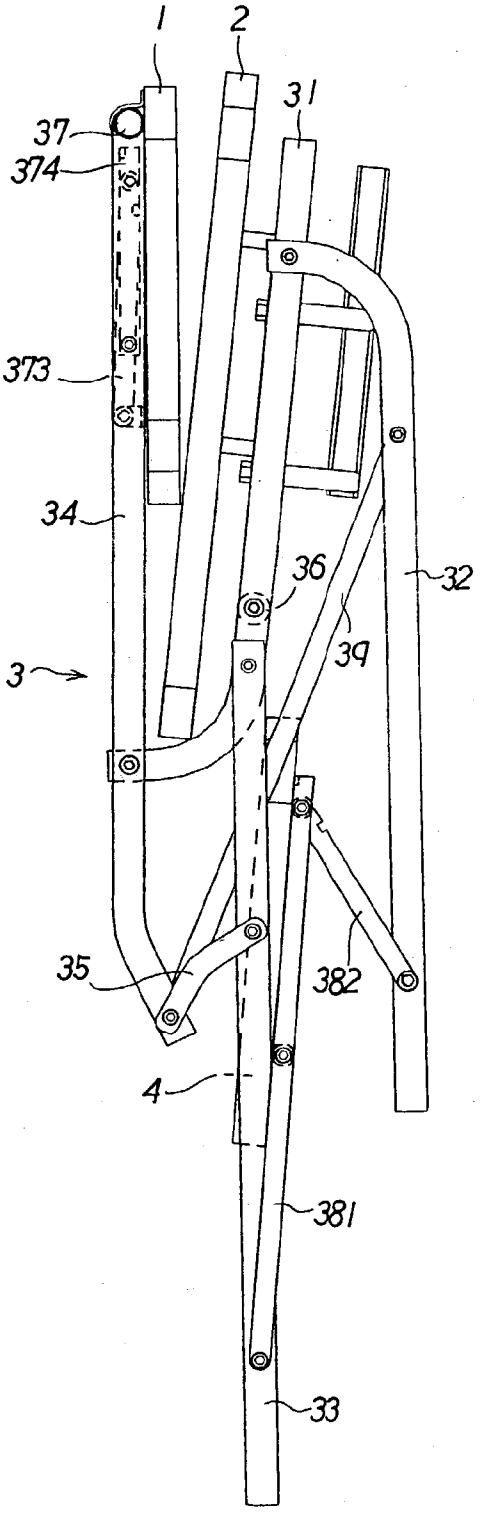

FIG.5

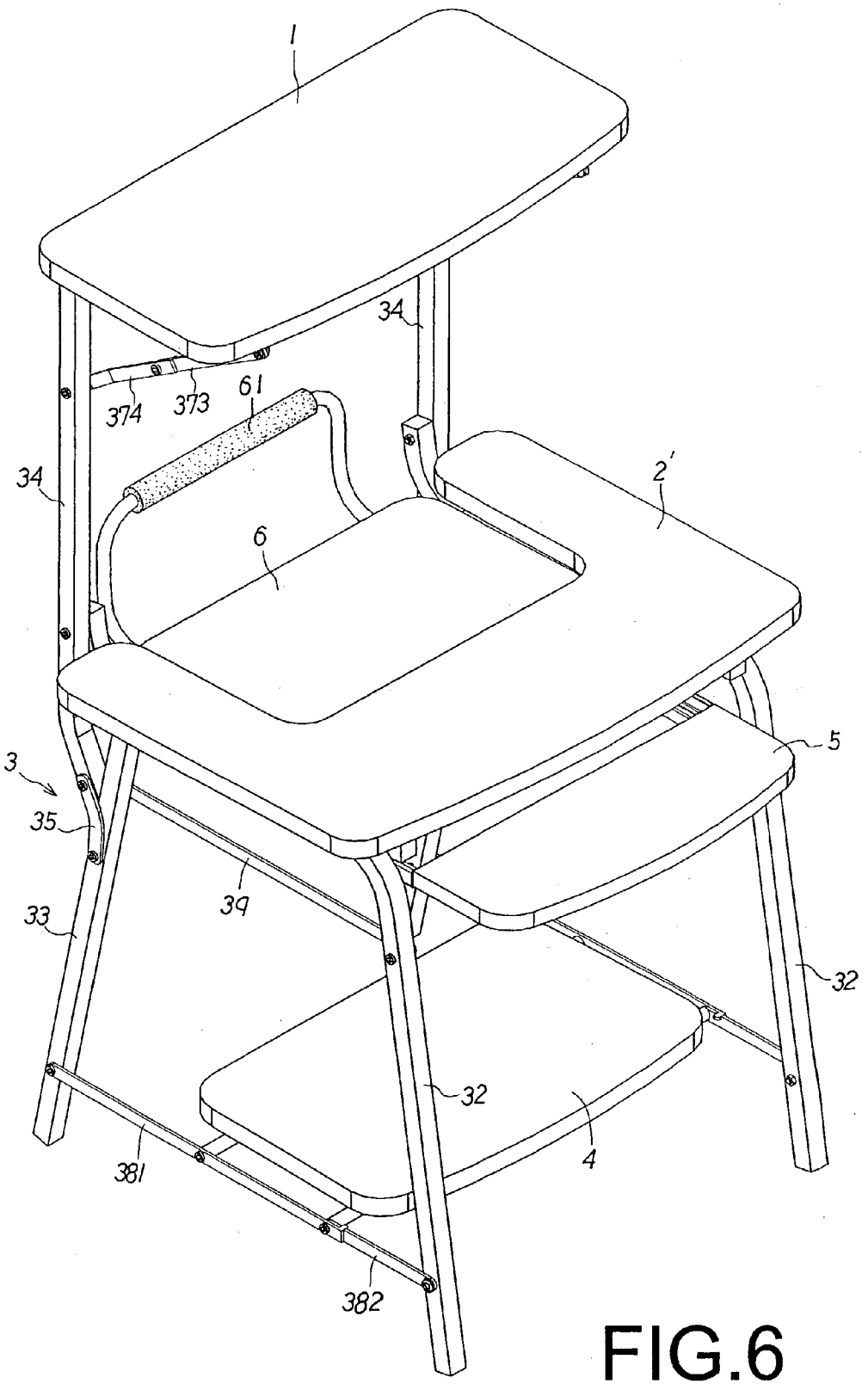

FIG.6

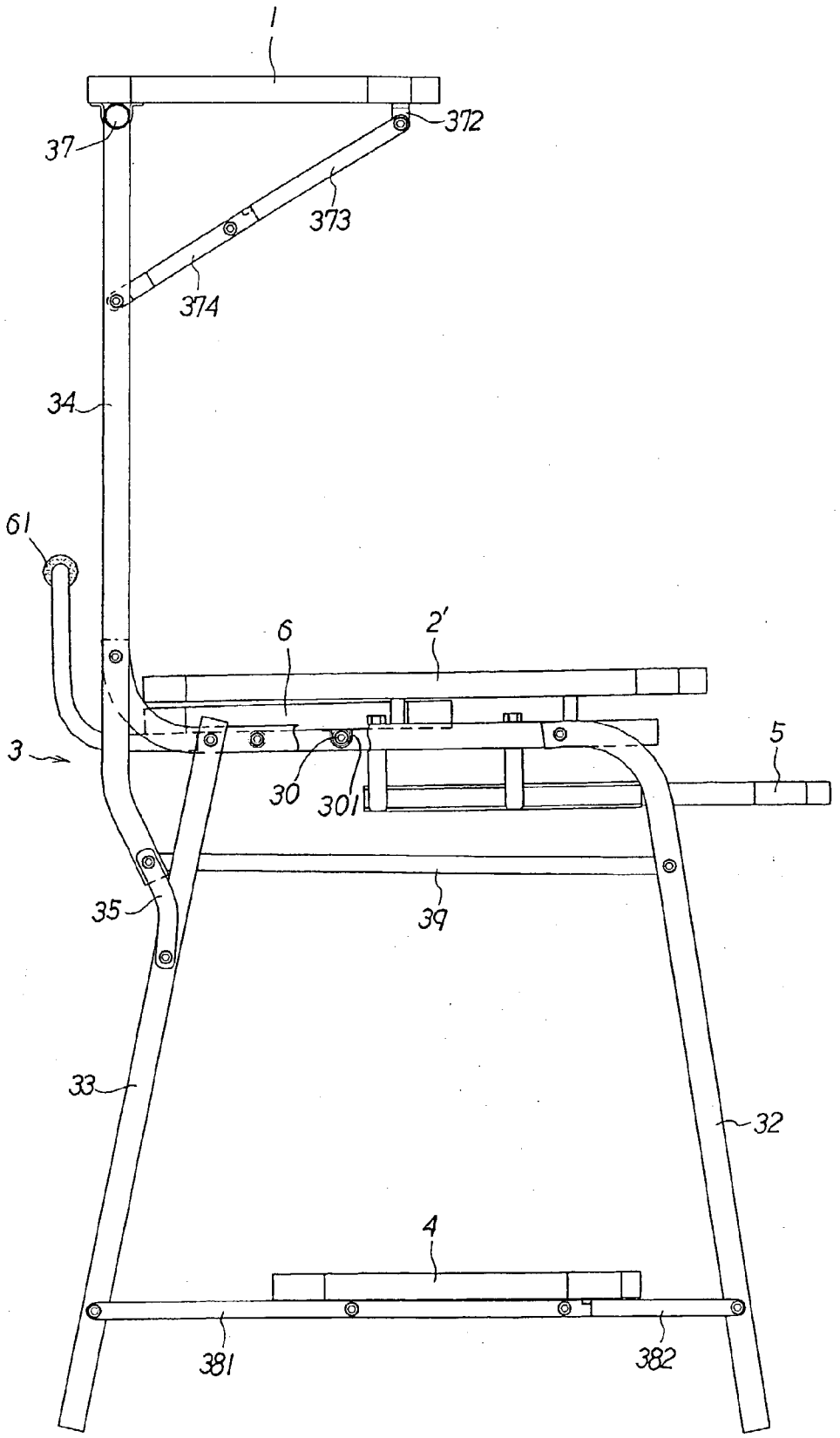

FIG.7

COLLAPSIBLE COMPUTER TABLE AND FRAME

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates to a collapsible computer table and frame, particularly to one having feet and two back frame rods both pivotally connected with two horizontal frame rods, which are then connected with the back frame rods and the feet by connect rods to permit the whole computer table and frame to be easily collapsed without taking off or releasing any components.

[0003] 2. Description of the Prior Art

[0004] There are many sorts of conventional computer tables mostly assembled by consumers themselves, that is DIY, with structures of the table and frame divided into a right and a left frame, and plural connect rods combined with a table board and placing boards. Their combining ways are almost using screws or bolts for fastening components with one another, having some objectives.

[0005] 1. To reduce assembling work to lower time and cost.

[0006] 2. To lessen the cost for packaging, transporting by reducing their dimensions.

[0007] 3. To let consumers enjoy pleasure of DIY.

[0008] However, most consumers have not so good skills as experienced workers in carrying out assembly of conventional computer tables and frames with not complete description of assembling work. So consumers have to spend not a few hours to assemble it. In spite of the pleasure of DIY, some people may not like DIY things, When an assembled computer table and frame has to be moved to another location, it has to be taken off and transported to a new location and put together again, probably causing some inconvenience. If it is used no more, it has to be taken off and the stored away, with many components not easily arranged orderly.

[0009] Some conventional computer tables and frames are collapsible, but they generally have some components to be taken off or some screws or bolts to be released before collapsed, not so simply to collapse.

SUMMARY OF THE INVENTION

[0010] The collapsible computer table and frame in the invention includes two pairs of folding frames, two front feet, two rear feet, a table board, an upper placing board and a lower placing board as main components. Each pair of the folding frame consists of a horizontal frame rod, and a back frame rod pivotally connected with each other. The front feet and the rear feet are respectively connected pivotally with two ends of the horizontal frame rods. The horizontal frame rods have rear ends pivotally connected with lower ends of the back frame rods. The lower end of each back frame rod rests on a rear surface of each rear foot. A front and a rear connect rod have one end pivotally connected with the lower end of the back frame rod. The rear connect rod has the other end pivotally connected with the rear foot, with the front connect rod having the other end pivotally connected with the front foot. Then the whole computer table and frame can be easily collapsed, with the rear feet standing on the ground and the front ends of the horizontal frame rods swung upward, and with the front feet pushed backward.

[0011] Further, a connect rod is connected between the upper ends of the back frame rods, and the upper placing board is pivotally connected on the connect rod for being swung up and down, and two pairs of folding connect rods are connected between the upper placing board and the back frame rods to let the upper placing board folded to locate beside the back frame rods.

[0012] Further, two pairs of folding connect rods are connected pivotally between each pair of the front and the rear foot, with two connect rods fixed between the two pairs of the folding connect rods. Then a lower placing board is placed firmly on the connect rods, which is received between the front feet and the rear feet in case of the computer table and frame is collapsed.

BRIEF DESCRIPTION OF DRAWINGS

[0013] This invention will be better understood by referring to the accompanying drawings, wherein:

[0014] **FIG. 1** is a perspective view of a first embodiment of a collapsible computer table and frame in the present invention;

[0015] **FIG. 2** is a perspective view of the first embodiment of a table frame in the present invention;

[0016] **FIG. 3** is a side view of the first embodiment of the collapsible computer table and frame in the present invention;

[0017] **FIG. 4** is a perspective view of the first embodiment of the collapsible computer table and frame under collapsing process in the present invention;

[0018] **FIG. 5** is a perspective view of the first embodiment of the collapsible computer table and frame in a collapsed condition in the present invention;

[0019] **FIG. 6** is a perspective view of a second embodiment of a collapsible computer table and frame in the present invention; and,

[0020] **FIG. 7** is a side view of the second embodiment of a collapsible computer table and frame in the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0021] A first preferred embodiment of a collapsible computer table and frame in the present invention, as shown in **FIGS. 1, 2** and **3**, includes a frame **3**, a table board **2**, an upper placing board **1**, a lower placing board **4** and a keyboard plate **5** as main components combined together.

[0022] The frame **3** consists of two—a right and a left—frames respectively having an horizontal frame rod **31**, back frame rod **34**, a front foot **32** with an upper curved end pivotally connected with a front end of the horizontal frame rod **31**, and a rear foot **33** with an upper end pivotally connected with a rear end of the horizontal frame rod **31**. Each horizontal frame rod **31** has a rear end curved up and pivotally connected with the back frame rod **34** having a curved end contacting a backside of the foot **33**. Then a connect rod **35** is provided to connect pivotally a lower end

of the back frame rod **34** with the outer surface of the rear foot **33**, and a horizontal connect rod **39** is provided to connect pivotally a lower end of the back frame rod **34** with an upper end of the front foot **32**. Further, Two connect rods **36**, and **37** are provided respectively between the two horizontal frame rods **31** and the back frame rod **34** so that the table board **2** and the upper placing board **1** may be collapsed toward the back frame rod **34**.

[**0023**] In addition, a U-shaped base **371** is respectively fixed on two sides of the connect rod **37** to let the upper placing board **1** swing freely, and a connector **372** is fixed on two sides of a front side of the upper placing board **1**, and two pairs of folding connect rods **373** and **374** are respectively connected pivotally with the connector **372** and the back frame rod **34**. Then the folding connect rod **374** has a stopper **374**A at the end and the folding connect rod **373** has a notch **373***a* to correspond to the stopper **374***a*. Further, two pairs of folding connect rods **381**, **382** are provided between two pairs of the front and the rear foot **32** and **33**, and two connect rods **383** are provided between the two pairs of the folding connect rods **381** and **382** to let a lower placing board **4** deposited on the two connect rods **381** and **382** stably.

[**0024**] Next, as shown in **FIGS. 4 and 5**, to collapse the computer table and frame in the spread condition shown in **FIG. 3**, at first fold the folding connect rods **373** and **374** to let the upper placing board **1** to rest on the back frame rods **34**. Then let the rear feet **33** stand on the ground, and fold up the table board **2** with its front side move upward, with the front feet **32** pulled rearward. Then the table board **2** may stand up, with relative movement of the connect rods **35** and **39**. Thus the front feet **32** and the back frame rods **34** will come side by side, with the lower placing board **4** moving to the position between the two rear feet **33**. It is quite evident that the computer table and frame can be collapsed easily and quickly, so is it in spreading it from the collapsed condition. Therefore, when a maker completes assembly of the collapsible computer table and frame, its size becomes to the minimum as possible, and consumers needs no assembly work, able to use at once by spreading.

[**0025**] Next, **FIGS. 6 and 7** show a second embodiment of a collapsible computer table and frame, having the same structure as the first embodiment except the table board **2'**, which has an almost rectangular opening formed in a rear portion, and a connect rod **30** added between the two upper frame rods **31**, a rear board **6** just fitting in the rear opening and pivotally combined on the connect rod **30** by means of U-shaped supporters **301**, and an inverted U-shaped arm **61** extending from a rear end of the rear board **6** rearward and upward to support a computer terminal placed on the rear board **6**.

[**0026**] While the preferred embodiments of a collapsible computer table and frame have been described above, it will be recognized and understood that various modifications may be made therein and the appended claims are intended to cover all such modifications that may fall within the spirit and scope of the invention.

What is claimed is:

1. A collapsible computer table and frame comprising:

a left and a right foldable frame, each said foldable frame consisting of a horizontal frame rod for fixing a table board and a back frame rod for positioning an upper placing board and a front feet and a rear foot;

said front feet and said rear feet respectively pivotally connected with two, a front and a rear, ends of each said horizontal frame rod;

said back frame rod having its lower end respectively connected pivotally with a rear end of each said horizontal frame rod; and,

a front and a rear connect rod having an end pivotally connected with the lower end of each said back frame rod, said rear connect rod having the other end pivotally connected with said rear foot, said front connect rod having the other end pivotally connected with said front foot, a connect rod fixed between said two horizontal frame rods, a connect rod fixed between said two back frame rods, said two folding frames combined to form a foldable frame of said collapsible computer table and frame.

2. The collapsible computer table and frame as claimed in claim 1, wherein an upper placing board is pivotally placed on said connect rod provided on the upper ends of said two back frame rods, said upper placing board is possible to be swung up and down, and two pairs of folding connect rods are provided between said two back frame rods and said upper placing board.

3. The collapsible computer table and frame as claimed in claim 1, wherein two pairs of folding connect rods are respectively provided between each pairs of said front feet and said rear feet, and at least two connect rods are connected firmly between a pair of longer portions of said two folding connect rods, and a lower placing board is fixed on said connect rods.

4. The collapsible computer table and frame as claimed in claim 2 or **3**, wherein two ends of said two pairs of the folding connect rods are pivotally connected with each other, one end of one of said folding connect rods has a stopper, and the other of one of said two folding connect rods has a notch for said stopper to fit therein, the outer end of said two pairs of folding connect rods are pivotally connected with said back frame rods and said upper placing board or between said front and said rear feet.

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