

CHAIR WITH TABLE AND BOOKS STORAGE

Technical Field:

The invention relates to a novel chair with a rotating table and easy use book storage
5 case for students, office workers and elders to have eye, spine stress free longer
hours of study /work improving health and fitness for all.

State of Art:

There are no study chairs with easy table or book case all attached to the chair in
10 the market. The existing chair, a separate table, separate book case has defects,
hardship to students & computer or office workers. You pull chair back, sit and lean
on table & read. For another book study stand, pull back chair, walk, get new book.
Why not reduce standing, walk for new book long hours of study? Our invented
chair, table and book case is cheaper too with lesser materials& better posture.
15 Existing writing chairs has a write table pad which has to be lifted up and down on
a hinge for each book study change. These write chairs need to clear books on write
pad before standing or sitting each time. Our new invention has no lifting of write
table pad, just simple easier push or pull table with books on table top. Write table
has under seat bottom book space for which you need to side bend your spine to
20 take or place books under seat space. In ours, books are on table- easy to push or
pull. We make reading, study easier and no spine bending or eyes strain too.

Technical Problem

The defects in the existing separate chair, table and book cases in use are:

- 25 1. Pull back your chair, stand before table, pull chair near to table and sit.
2. After reading stand up, pull back your chair, get new book/notebook and
put it on table.
3. Pull chair again to table to sit & study.
4. Most chair has no height adjustment for growing age from 10 years to 18
30 years.
5. Most kids sit bending spine, damaging eyes and spine.

6. There is loss of concentration soon- leading to lower skills of study.
7. We have to buy many sets of chair in growing up years to avoid stress on eyes, spine- wasted money, environment, furniture disposable problem.

5 Solution to Problem

Our new chair with table and book storage case is an easier solution:

1. Load books, notebooks in side book storage case for planned hours of study.
2. Sit in chair,
- 10 3. Pull the table on its wheel, keep needed book/ notebook on table top.
4. After study, replace studied book/ notebook in side book case without bending spine as in existing write chairs and pick up new book and study.
5. After end of study hour, keep books/ notebooks in book storage case, push table front- a lower effort/ energy than push of chair.
- 15 6. The chair and table legs has height adjustment elements- pin/ bolt mechanism for years of growing height for the chair to be used for use till old age.

The new chair is a boon for students to have safe eyes, straight spine-a correct posture.

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Accordingly the object of the invention is to identify the solutions for problem associated with good posture for growing age with lower cost of long use chair table. This an investment for good posture & longer hours of study with ease for longer use. An extensive search has been carried out using the Internet and related patent specifications were studied for chair with rotating table and side book case. Since the present invention is radically different, in using the new chair with a revolving table& side book case, the inventors are unable to site any patent specification out of the available databases. Search of the USPTO, European patent offices, others, known literature, the chair and table companies' literature do not reveal machine like ours. We are not able to cite prior art chair with novel rotating

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(not revolving on its axis) table on a hinge joint and book case of near related structure or function.

Summary of the invention:

5 The new chair has chair proper with four legs, a seat and spine supporting erect sitting comfortable back rest. The new chair four legs has height adjusting pin/ bolt adjusting legs for easy height adjustment with children growth. For the right hand person, the left front chair leg has a joint with one leg of table for easy rotation of the table by right hand. For left handed, right front chair leg can have table joint
10 pushing table to right side. The table has another leg a rolling wheel or castor to roll the table. The table has only 2 legs- one for pivot rotation and wheeled leg. Ours is different from existing tables which has 4 legs. The wheeled table leg has height adjusting pins/ bolts with series of holes on moving tubes as in walking sticks. The table legs support table top, wood/ plastic writing boards of needed size. On the
15 other side of the chair is the book case for holding books/notebooks for the study. The new chair is easy to use: Just load books/ notebooks in book case, sit in chair pull table front and adjust table slant / height, place book and study. After study, place that book in side book storage case, pick new book/notebook study for longer hours. The chair has water/ coffee/snacks holding attachment for use in study
20 without spoiling/ spilling on table/ book case. This is a height adjustable chair with lower cost table- saving on furniture costs for parents with good ergonomic posture for good spine/ eyes health.

Statement of Drawings:

25 These and other objects and features of the invention will become more apparent upon perusal of following description taken in conjunction with accompanying drawings wherein:

Figure 1 shows the details of new chair with table and books storage case

Figure 2 shows the parts of the chair, joints, table and book storage case.

30 Figure 3 shows the table frame assembly with table pad, legs and slant mechanism.

Figure 4 shows the hinge type of joint of chair with table leg.

Fig5. Shows chair with bearing inserted joint.

Fig 6 shows working of chair with side table position.

Fig 7 shows table in front of chair for study.

Fig 8 shows a table with lockers.

5 Fig 9 shows adjustable height adjustment for chair legs.

DESCRIPTION OF PREFERRED EMBODIMENTS

The following specification describes salient features of invention, the method of construction, the method of use and the advantages of the novel invention.

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The novel device has a novel chair with a table and book storage case, for years of use and with a pleasant looks too. The existing chair and separate table have not been improved for long. The object of the invention is to overcome the inherent defects of separate chair, table, book case in use and cost. To this end, the new invention is addressed. Our chair table & book storage case, is better, easy to use, maintain, saving money, time, health too. Ours is not a shop floor improvement but needed a long research on table modification from four legs to two, it needed work on perfect joint with good easy table holding and rotation. Table height adjustment and slant were studied and solved. It is non-obvious and new as all furniture companies in most countries didn't solve this for long felt need for huge student's / workers population for a good ergonomic chairs.

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The new invention integers are a chair with a joint in a front leg, a two leg table frame supporting top table pad for various slanted work/study angles of comfortable eye reading, a side book storage case for easy book/notebook placement or use, adjustable height of chair and table wheeled leg for growing kids height saving on new chair buying cost. These five integers are new, novel, new function and result in work/ study for all in our chair table book case.

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30 The device is novel for reducing the people energy of work/studying, stress of long hours of study by growing kids with safe eye, spine posture.

The new chair is the need of the hour for growing kids with lesser energy in study work,-a problem in all the countries for all kids.

The novel chair according to invention is better because it is a compact & easy use
5 by kids/adult workers.

The invention has a chair 1 Fig.1, table 2 and on other side a book storage case 3 .The chair 1 has four legs, seat and back rest- not numbered in diagrams. .The lower part of four legs have height adjusting elements say pins/ bolt 4, shown in Fig.9
10 with two sliding tubes for chair height increase or decrease. The chair on the front left leg has a joint 5 for steady fixing and easy rotation of table for right handed persons. For left handed person the joint can be on the right front leg. We have shown the figures for right hand persons. It is easy to imagine a reverse image for left handers with right front leg having pivot for table rotation to right side.

15 On the other side of chair joint is fixed a table leg 6 now called pivot leg. The pivot leg doesn't touch the floor. The table has another wheeled leg 7 with a bottom wheel 8 to roll-on the floor. A cross tube 17 fixes & holds two legs for steady table rotation. This wheeled leg 7 in its lower part has height adjustment element- pin/bolt 9 Fig 2, Fig 3, on sliding tubes for kids growing height adjustment for years of use. The
20 pivot and wheeled table legs has an upper height adjustment pins/ bolts 19 Fig 2 on sliding tubes for table height adjustment after sitting on the chair. The top of both table legs has a central table support tube 10 for fixing table pad .This support tube 10 in both ends are bent short tubes to fix to top of pivot and wheeled legs. The
25 wood/ plastic write/ study pad 11 has two bottom loops or clamp 12 to fix on the upper table support tube 10. The clamps hold table pad and help to fold or raise the table write/ study pad 11 for correct comfortable height and slant in study for eye comfort. The table pad has rings 13 on the side for bottom slant lever 13 to fix stably the table study pad 11 in use. The table can have two slant lever on each side for
30 stable & strong table use. The slant levers in simple forms is a hook fitting rings on table legs 6, 7 and bottom of table pads 11. The slant lever 13 fits rings. Slant lever

is shown in Fig 3 on one side. In Fig 2 two slant levers 13 are shown. Just fit the slant lever 13 in rings of legs and table pad. Table pad can have three or four rings on each side to have three or four slant angles. Two rings on table pad 11 is shown in Fig 3. Slant levers help for strong support of table pad to study and use good slant
5 for eyes comfort. The table has a fixing lock 14, Fig 2, Fig 7 say a short chain or bolt or padlock type or hook type to fix table with chair in study to prevent free accidental push of table in study. This is a safety device too.

The other side of chair has a book/ notebook storage case 3, Fig 2. It can have chair
10 fixing part 15 welded or screwed to chair side legs, book support floor 16 to keep books/ notebooks and side support 18 to prevent fall of books. It can have collapsing /expanding sliding plates or tubes for smaller or bigger books use. A bunch of books/notebooks can be held in book storage case for needed study.

15 Coffee, snacks holders 25 Fig 2 can be attached to table top side chair side or table legs for safe no spill on write study pad 11. The slant of write table can be adjusted by changing the support slant lever 13 on its rings on table legs or table side rings.

The table can have shelves with keys 22 Fig 8 for storing assets. This can have one
20 more wheeled leg for easy rotation of table for use in offices.

To use, the needed books, notebooks are placed in book case 3. The table is on the side of chair Fig 6. Sit in chair, pull table front Fig 7 and adjust table height pin/ bolt 19 up and down for correct eye distance with erect straight spine. Slant lever 13
25 can vary slant of table pad for comfortable eyes. Lock table lock 14 onto chair other front leg as shown in Fig 7 between chair leg and wheel leg 7. Place books/Notebooks/ laptops on table study, write. Books are not shown for clarity in all figures. When completed, place studied books/ notebook in side book storage case 3, take new book/notebook. Study all books. Then release table chair lock 14,
30 walk away for next use. The seat, back rest give good back support. Figs 6, 7 show

side or front position of table on chair for easy reading. Pushing table on wheels is less effort than pull of chair in normal chair separate table use!

5 Metal tubes for chair, table frame are cut for various parts size, welded or bolted as illustrated. Fix seat in chair, the table write pad to table frame top, fit adjustment pins// bolts of chair legs,4, wheel leg7, fix joint for chair table. The table rotates from side to front easily in the joint. Also, plastic tubes can be used too for kids model chair, table with bolted or pasted joint to chair front leg and table pivot leg. Flats of steel needed thickness and strength can be used instead of tubes. Squared
10 tubes can be used instead of round.

The device may be modified. The seat may be plastic, foam in cold climate and wood / multi-holed metal material in hot countries. The chair legs can be bent for good shape with height adjustments pins/bolts4. The back rest may be spine only,
15 full neck or head height with lumbar spine support, neck spine support in full head height models. Design & shape of Chair can be varied. The chair legs may have a screw 23 Fig 9with a broad plastic moulded head on bottom end working in a nut welded to inside of chair leg inside for height adjustment. Other alternatives for chair height adjustments can be used too. The Chair table joint5 may be hinge type
20 20 as shown in Fig4 with two, plates as used for windows or door hinge type. Chair is firmly on floor, the table rotates on the hinge from side to front with wheels silently for study/ work. Alternatively, a tube 21 Fig5 with inside top and bottom bush/ bearings 24 holds the inner rotating pivot table leg6. The table pivot leg 6 rotates in hinge/ bearing tube21 to bring table in front of chair or slide to back side
25 saving space. The table top write study pad11 can be of different sizes, a book or notebook or larger for many book, drawing size, or book notebook laptop size for offices. Various sizes for different adults, kids, can be planned for each age. Kids 2 to 5 years can have no book case only read, eat use with chair & table height adjustment. From 6 to 10 years the seat width is appropriately hip size. A small
30 book case can help. The table can be for read or eat too. After 11 years seats may be wider for adult hip size with longer table/ chair legs height adjustment for use

till old age. Any additional coffee holder 25 fig 2, snacks, computer etc. fixtures for comfortable use may be used. Chair can have coffee holder 25 Fig 2, and earthed electrical wire socket for laptops. Style design of chair or table in shape, colour can be varied for looks. Slant levers can be substituted by hydraulics or motorised with controls but with more cost. Height of book storage case can be adjustable too with bolts on series of holes on chair legs. Wheel castor can be screwed in a nut inside bottom end of wheel leg. Chair table lock may a magnet fixed to table leg 7, attaching to a metallic piece on chair leg or body as in doors magnetic latch.

Chair, table may be made of engineered plastic, wood or metal for needed age & weight.

The present invention can be modified in various embodiments, and the scope of the invention is not limited to the above-described embodiments. Thus, if the modified embodiment includes the structural elements of the claimed scope of the invention, it should be considered as falling within the scope of the claims of the present invention.

Advantages of the new invention:

1. This is chair, table, book storage case is combined- three in one simple easy study use!
2. The chair legs height can be adjusted for long years of use- less environmental damage & reduces new chair buying cost for growing kids.
3. The table has two legs pivot 6 & rolling wheeled legs 7 not ordinary table four legs- saves material cost.
4. The push or pull of rolling table is easier than chair or table moving energy!
5. Table height, slant height adjustments are good for eyes, spine for longer study!
6. Safe eyes, erect spine posture can cut later spondylitis or eye glasses problems.
7. Comfortable posture with easy book change is longer happy study too!
8. Kids, adolescents, adults can benefit in study, work for longer hours.

WE Claim,

1. A chair with table and books storage comprising of:
 - (a). a chair component (1) having a seat, a backrest; legs, a joint element (5) on a front leg.
 - (b) a table component comprising the table frame (2) with a pivot leg (6) a wheeled leg (7) a cross arm (17) between pivot leg and wheeled leg, the pivot leg (6) fits the chair leg joint (5), the table pad (11) on the frame top.
 - (c)) a book storage case (3) on chair side on opposite side of table
 - (d) a lock (14) element on table frame and chair front.
2. A chair with table and books storage as claimed in claim 1, wherein the table frame (2) comprises of the table pivot leg (6), the wheeled leg (7), the middle cross tube (17) and the top table support tube (10) with height adjusting elements(19)& the top table pad (11).
3. A chair with table and books storage as claimed in claim 1, wherein the table pad comprises the table pad proper (11), the table pad fixing clamps (12) for the top table support (10) tube, rings of the slant levers (13) on table pad sides.
4. A chair with table and book case: as claimed in claim 1 wherein the wheeled leg (7) has height adjusting element (9).above wheel (8).
5. A chair with table and books storage as claimed in claim 1, wherein the side book storage case comprises a chair fix bar (15), books support floor (16) and side support (18) for books storage.
6. A chair with table and books storage as claimed in claim 1 wherein table pad slant adjustment comprises the slant levers (13), rings on table legs and table pad (11).
7. A chair with table and books storage as claimed in claim 1, wherein the chair table joint is a hinge joint, wherein the table component is deployed extending away from the chair component on the chair's side and in front of chair for study.

8. A chair with table and books storage as claimed in claim 1, wherein the chair table bearing joint comprising the bearings (21) tube, it's inside bearings (24) for the pivot leg (6).
9. A chair with table and books storage as claimed in claim 1, wherein the table
5 support tube (10) height adjusting elements (19) fits on top of table frame pivot leg (6) and wheeled leg (7).
10. A chair with table and books storage as claimed in claim 1, wherein the table frame has shelves with key lock (22).