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(57) ABSTRACT

A cutting assentoly is slidably mounted on a T- Square. The T-Square may incl ude a scal e having multiple indi cia for measured cutting based on the size of the wall board sheet being cut. The cutting assently is mounted on a slider which may be clamped at measured positions al ong the armof the T-Square. The cutting assentloly incl udes oppositely di sposed knife bl ades which are slidably nount ed in a housing and spring I oaded on opposite si des of a pi vot mount such that when not in use the cutting assentoly is urged to level and rests with the two knife blades retracted. As the housi ng is rotated so as to lower one end, the corresponding knife bl ade ext ends fromthe housing to engage with and score or cut the surface of the wall board material. The cutting tool may be rot at ed in the opposite direction to thereby extend fromthe housing the ot her bl ade of the pair of oppositely di sposed knife bl ades.












Fig. 10






Fig 16

Fig 17




Fig 22



Fig 24


Fig 25

$>24$



WALLBOARD CUTTI NG TOOL

CROSS REFERENCE TO RELATED APPLI CATI ON
[0001] Thi s application clains priority from United States Provi si onal Patent Appl i cation No. 60/645, 937 filed Jan. 24, 2005 entitled Wall board Cutting Tool.

## FI ELD OF THE I NVENTI ON

[0002] Thi s invention rel ates to tools and devices for accur at el y scoring or cutting wall board or like material usi ng a kni fe referenced to an edge surface of the wallboard bei ng cut, and in particular to a conbi nation of T-square and articul ating knife.

## BACKGROUND OF THE I NENTI ON

[0003] It is known that when scoring or cutting (collectivel y her ei $n$ cutting) wall board material s such as gypsum boar d, wal I boar d, pl ast er boar d, i nsul at i on boar d, or like material s particul arly in construction applicati ons that time to perform cutting oper ations can be reduced and qual ity of cut increased when using cutting tool s referenced to an edge of the wall board material as in the case of a T-Square gui ded knife. Cutting of wallboard needs to be quite accur ate in most cases as the material is often used in fini shing interiors of buildings where fit ultimately affects the qual ity and appearance of the finish. Furthermore the cutting of wall board materials should be quick and easy to maxi mize installer productivity and reduce overall cost of installation. [0004] In most cases, wall board material s can be cut by first scoring the surface, and then bending the board al ong the score line so as to break the board. Scoring a I ong Iine of 4 feet, typi cal gypsumboard width, or even l onger lines of 8 to 12 feet or more can be difficult without a referenced gui de. Long strai ght edges often get bent and mal formed due to miss-handl ing during the course of normal construction work and transportation bet ween $j$ ob sites. Sever al attempts ai med at resol ving thi s chal lenge have been made as shown in U.S. Pat. No. 6, 629, 370 i ssued to Sposat o on Oct. 7, 2003, whi ch teaches of a board cutter i ncl udi ng a T-Square and a common utility knife mounted to a slider which rides al ong the I ong leg of the T-Square and is fixed at a position by means of a clamp mechani sm as in a thunb screw. The com mon utility knife is connected to the slider by way of a pi votal pin, and clamped into a depth of cut position agai $n$ usi $n g$ a thunb screw arrangement. The primary drawback of the Sposato patent is that is difficult to cut the full face of a wall board fromedge to edge as the T- Square runs out bef ore the knife has scored the whole length of the surface. This is particularly evident when cutting a wall board while it is standing on end as when I eani ng agai nst a wall, the I eadi ng end of the head of the T-Square is bl ocked by the floor or ceiling preventing the knife from reaching the edges cl osest to the obstructing floor or ceiling.
[0005] The probl em of the gui di ng rember or T-Square head of the scoring tool reaching the end of the wallboard sheet ahead of the cutting tool in either direction found in most of the prior art of whi ch applicant is aw are such as U.S. Pat. No. 6, 467, 174 i ssued to Kot ori on Oct. 22, 2002, U. S. Pat. No. 5, 471, 753 i ssued to Rodrig-

## SUMMARY OF THE I NVENTI ON

[0006] The present invention serves to improve the function and productivity of a wall board scoring and cutting tool by way of a dual extending and retracting bl ade cutting assenbl y slidably attached to a T- Square wher ei $n$ the T-Square nay incl ude a scal e having multiple indicia for qui ck measured cutting based on the size of the wall board sheet bei ng cut. The cutting assentbly is mount ed on a slider, whi ch can be clamped at neasured positions al ong the ruler arm of the T-Square for example accor di ng to a scal e imprinted on the rul er arm The cutting assentoly incl udes oppositel y di sposed knife bl ades which are slidably mount ed in the housing and spring loaded on opposite si des of a pi votal mount such that when not in use the cutting assently $y$ is urged to level and rests with the two knife bl ades retracted and the housi ng parallel to the upper surface of the rul er arm The tool user engages the cutting device with the wall board by pi voting the cutting device rocker housi ng down t owards the wal l board material on the si de opposite of the intended direction of travel of the T-Square (for sake of reference referred to bel ow as the first directi on). As the cutting devi ce rocker housi ng is rot at ed so as tolower one end into its l owered oper ating position, the corresponding knife bl ade (for sake of reference referred to bel ow as the first bl ade) locat ed within the housi ng, whi ch al so serves as a handle, extends fromthe housing to engage with and score the surface of the wal I board naterial. The cutting tool is moved so as to slide al ong the surface of the wall board material, gui ded by the fence of the T - Square riding al ong the edge of the wall board naterial, until the T-square head encounters an obstacle or the end of the wal l board. The cutting tool is then rel eased so as to resiliently urged by the springs in the housing to ret urn the housi ng back to its neutral level resting position, the first bl ade si mul taneously retracting into the housi ng. The cutting tool may then be rot ated in the opposite direction to ther eby extend from the housi ng the second bl ade of the pai $r$ of oppositely di sposed knife bl ades so as to engage and score the wall board surface when slid in a second di rection opposite the first direction, ther eby allowing the user of the tool to cut the full extent of the wallboard sheet fromedge to opposite edge qui ckly and accuratel y.
[0007] In summary the wal l board cutter according to one aspect of the present i nvention nay be char acterized as i ncl udi ng a rocker housi ng havi ng oppositely di sposed retractable cutting bl ade assenbl ies, the housing pi votally mount ed about a pi vot mount on a base, the base sli dable al ong the ruler arm of a modified T-Square. In particul ar, the base is slidably mounted on the T-Square so as to sel ectivel y slide al ong an upper si de of a rul er arm of the T-Square. The rocker housi ng is sel ecti vel y pi vot able about an axis of rotation parallel with the rul er arm The oppositely di sposed pair of cutting bl ade assentl $i$ es are slidably mounted in oppositel y di sposed copl anar array withi $n$ a correspondi ng pai $r$ of cavities in the rocker housi ng. The pi vot mount is positioned bet ween the pair of cavities.
[0008] A drive linkage is mounted so as to cooper ate between the base and the pair of cutting bl ades, alternatingly to either drive a cutting edge of a first bl ade
assentoly of the pair of cutting blade assentblies from the rocker housing in a first direction upon pi voting of a corresponding first si de of the rocker housing domnardly and so as to si multaneously retain a second bl ade assentbly of the pair of cutting bl ade assentol $i$ es within the rocker housing, or to drive the second bl ade assentbly fromthe rocker housi ng in a second di rection opposite the first direction upon pivoting of a correspondi ng second si de of the rocker housing, opposite the first si de, downwardly and so as to si multaneously retain the first bl ade assently yithin the rocker housing. Thus when the first si de of the rocker housing is pi voted downwar dly about the pi vot mount, the first bl ade assentoly is rot at ed downwardly into cutting engagenent with a sheet of wall board when the T-Square is nounted on an edge of the sheet so as to lay the ruler arm flush on the sheet of wallboard, and when the second si de of the rocker armis pi voted downwardly about the pi vot mount, the second bl ade assently is rotated downwardly into cutting engagement with the sheet of wal I board agai $n$ when the T- Square is mount ed on the edge of the sheet so as to lay the ruler armflush on the sheet of wall board. Advant ageously the rocker housing is adapted to provide a handle for gripping by a user so that the user, when gripping the handle, may transl at e the housing, bl ade assentblies, base and T-Square over the sheet of wall board with the first or second blade assentol ies in corresponding cutting engagement when the housing is si mult aneously pi voted domwardly on the first or second si de respectively.
[0009] In a preferred entoodi ment a resilient bi asi ng means, such as an oppositely di sposed pair of springs, is mounted in the housing and cooper at es with the pair of cavities so as to resiliently bi as the pair of blade assentbl ies inwardly of the housing into the cavities. The cavities are el ongate so as to extend bet ween oppositely di sposed first and second openi ngs in correspondi ng first and second sides of the housing and the resilient bi asing means may include first and second resilient biasing means such as the pairs of springs. The drivelinkage urges the first or second bl ade assentol ies li nearly al ong the corresponding first or second cavities upon corresponding downward pivoting of the first and second si des of the housi ng agai nst the return bi asi ng force of first and second resilient bi asi ng means respectively. The drive Iinkage may incl ude first and second drive arms rotatably mounted at first ends thereof to the base and rotatably mounted at opposite second ends ther eof to the first and second bl ade assentolies respectively. [0010] In one enbodi ment each of the first and second bl ade assentol $i$ es has a substantially vertical sl ot formed therein, wher ei $n$ the second ends of the first and second drive arns are respectively slidably mounted in a corresponding substantially vertical sl ot whereby the upward rotational ranges of motion of the first and second si des of the housi $n g$ are extended upwardly when the first and second blade assentlies are retracted into a stowed position within the corresponding the first or second cavity. Thus the opposite side, the second or first si de of the housing respectively, have a cor responding extended downward rotational range of motion about the pi vot mount.
[0011] The drive arns may be linear nenbers and the pi vot nount may be a pi vot nenber such as a shaft, pi $n$, axle etc extendi ng between the base and the housi ng al ong the axis of rotation. The first ends of the drive arms are rotatably mounted on opposite adj acent si des of, and bel ow, the pi vot mentber. The substantially vertical sl ots nay be formed in inwardly di sposed ends of the bl ade assentol $i$ es.
[0012] The housi ng may be el ongate so as to extend its I ongitudi nal axis between the first and second openi ngs
in the housing so that the housi ng forns an el ongate handl e ext ending I ongitudi nally al ong its I ength orthogonally fromthe axis of rotation. For example, the first and second openi ngs may be at outermost di stal ends of the first and second si des of the housing.
[0013] In preferred entodi ments, a st or age compartment may be for med in the housing for renovably storing spare bl ades to repl ace blades in the first or second blade assentbl i es.
[0014] The base may further comprise a sel ectively releasabl e lock for locking the base at a sel ected position al ong the ruler arm The rul er armadvant ageously has a parallel array of I ength marki ngs extending al ong a portion of the length of the ruler armso that the blades are sel ectively positionable al ong the ruler armat known di st ances, marked in the length marki ngs, correspondi $n g$ to di mensi ons of the sheet of wall board when the T-Square is mounted on the sheet of wall board.
[0015] In the preferred entoodi ment the first and second bl ade assentbly incl udes first and second bl ades removably mounted so as to be carried in a corresponding first and second bl ade carrier mounted slidably in the corresponding first and second cavities for sliding transl ation al ong the first and second cavities in oppositely di sposed first and second Iinear di rections substantially radially out wardly of the pi vot nenber. The substantially vertical sl ots may be formed in inner ends of the carriers corresponding to the inner ends of the bla des. In particular, the bl ades may include first and second bl ades hel din the carriers by sandwi chi ng of inner ends of the blades within the carriers so as to leave outer ends of the bl ades di sposed outwardly of the carriers, and outwardly al ong the cavities so that when in ext ended positions the carriers are within the cavities adj acent corresponding the openings and onl y the cutting edges protrude outwardly of the openi ngs.

## BRI EF DESCRI PTI ON OF THE DRAW NGS

[0016] In the accompanying figures, corresponding reference numer al s denote corresponding parts in each view, wher ei n :
0017] FIG 1 is, in front perspective view, a preferred entoodi ment of the wall board cutting tool in use scoring a wall board panel.
[0018] FIG 2 is, in top view, a preferred entoodi ment of the wall board cutting tool.
[ O019] FIG. 2a is, a detail view of FIG. 2 showing the scale of the wallboard cutting tool.
[0020] FIG 3 is a cross sectional view al ong line 3-3
in FIG 2 showing internal structure partially in dotted out I i ne.
[0021] FIG 3a is a cross sectional view al ong Iine 3a-3 a in FIG 3.
[0022] FIG 4 is, in the right si de el evation view of FIG 3, of the wall board cutting tool handle rotated into an operating position for cutting or scoring wallboard.
[0023] FIG 5 is, in front perspective view, the wall board cutting tool of FIG 1 pl aced on a sheet of wall board, positioned prior to making a cut.
[0024] FIG 6 is, in per spective view, the wall board cutting tool of FIG 5 in use, shown part way through making a cut or score on the wal I board.
[0025] FIG 7 is, in perspective view, the wall board cutting tool of FIG 6, in use, shown substantially most of the way through maki ng a cut or score on the wall board.
[0026] FI G 8 is, in perspective vi ew, the wall board cutting tool of FIG 7, shown substantially most of the
way through making a cut or score on the wal I board, with the cutter in the neutral, bl ades retracted position. [0027] FIG 9 is, in perspective view, the wall board cutting tool of FIG 8, shown operating in the reverse direction fromFIGS. 6 and 7 making a reverse cut or score fromthe edge opposite the initial starting edge of the wall board panel so as to j oin the two cuts.
[0028] Fl G 10 is, in perspective vi ew, an expl oded vi ew of the knife bl ade and bl ade carrier of the wall board cutting tool of FIG 3.
[0029] FlG 11 is, in perspective partially cutaway view, the cutting tool of FIG 3 illustrating the pivoting action and blade extensi on as a result of applying a downward force to one end of the cutting head.
[0030] FIG 12 is a per spective expl oded vi ew froma first side of the wall board cutter according to the present invention.
[0031] FI G 13 is a per spective expl oded vi ew froma second opposite si de of the wall board cutter of FIG 12.
[0032] FIG 14 is a first side perspective view of the assentlol ed wal I board cutter of FIG 12.
[0033] FIG 15 is a second side per spective view of the assentbled wall board cutter of FI G 13.
[0034] FIG 16 is a first side el evation view of the wa| l board cutter of FIG 14.
[0035] FIG 17 is the wall board cutter of FIG 16 with a first end lowered so as to extend a knife bl ade fromthe l ower ed end.
[0036] FI G 18 is a cross- sectional view al ong line 18 18 in FIG 14.
[0037] FI G 19 is the vi ew of FIG 18 with the first end lowered as in FIG 17 so as to extend the knife bl ade fromthe l owered end.
[0038] FIG 20 is, in partially expl oded plan view, the cutting head assentbly according to an al ter native entoodi ment of the present invention.
[0039] FIG 21 is, in front el evation view, the attaching plate of the entodi ment of FIG. 20.
[0040] FlG 22 is, in side el evation view, the attaching pl ate of FlG 21.
[0041] FIG 23 is a sectional view al ong line 23-23 in FI G. 28.
[0042] FlG 24 is a sectional view al ong line 2424 in FIG. 28.
[0043] FIG 25 is a partially cut away plan view of the base of the entoodi ment of FIG 28.
[0044] FIG 26 is, in el evation view, the main body of the cutting head assentlol $y$ of FIG 20.
[0045] FIG. 27 is, in el evation view, the cover pl ate of the cutting head assentoly of FlG 20.
[0046] FlG 28 is, in el evation view, the cutting head assently y of FIG 20 assentol ed and mount ed onto a T- Square, the cutting head assently depi cted in both its neutral level position and with its left side pi voted downwardly so as to extend a bl ade fromthe lowered end. [0047] FIG 29 is, in el evation view, one hal fof the bl ade carrier according to the present invention.
[0048] FIG 30a is, in side el evation view, one of the drive arms of the driving linkage driving the blade carriers al ong the ends of the cutting head rocker housing. [0049] FIG 30b is, in front el evation view, the drive arm of FIG 30a.

## DETAI LED DESCRI PTI ON OF EMBOD MENTS OF THE I MENTI ON

[0050] The present invention is a wall board cutting tool that ai ds in quick and accur ate scoring or cutting of wall board panel s in prepar ation for installation of same. FIG 1 shows the pr ef erred entoodi ment of the pres-
ent invention in use whereby a knife 17 within the handle body 1 is drawn across the surface of the wall board 32 at a fixed di stance fromthe wall board edge 33, resulting in a cut or score-line 34 being made in the wal I board surface 32. The main body of the cutting head 1 is mounted on cutter head base 10, which is slidably mount ed on T- Square ruler arm11, and adj ust ably locat ed and Iocked in position al ong T-Square arm 11 usi ng a quick lock such as a camlock 20 . The T-Square fence 12 is slid al ong, in contact with, wall board edge 33 ther eby mai nt ai ni ng constant the di stance bet ween the knife bl ade 17 and wal l board edge 33 as the bl ade is drawn across the wall board surface 32 .
[0051] The wall board cutting tool incl udes a T-Square and dual bl ade cutting head 1 pi votably mounted on a sli dable base 10 that slides on the T-Square arm11. The cutting locations of the kni ves 17 in cutter assently 1 can be accurately fixed rel ative to the reference face 31 of the T-Square fence 12 by adj usting the cutter base 10 to locati ons marked on the T-Square arm 11 by al i gni ng indicia pointers 39 on the cutter base 10 with the identical indicia markings 40 and 41 on opposite edges of T-Square arm11. The indi cia markings 40 and 41 are associ at ed with scal es 42 through 48 for quick measur ement dependi ng on the desi red cut to be made. Scal e 42 marks the di stance bet ween the reference face 31 of the T - square fence 12 and the kni ves 17 in cutter assem bly 1 in inches and fractions thereof. Scale 43 marks the di stance fromthe opposite end of an 8 foot Iong waIl board when the T-Square fence 12 is pl aced on the end of this I ength of wall board. Si milarly scal es 44, 46, and 47 mark the di stance fromthe opposite end of 10 , 12, and 14 foot I ong wall boards respectively when the T-Square fence 12 is pl aced on the respective end of th ese lengt hs of wall board. Scal es for ot her lengt hs such as 16 foot I ong wall boards may al so be provided. Scale 45 marks the di stance fromthe odd and even foot from the reference face 31 of the T- Square fence 12. Scale 48 marks the di stance between the reference face 31 of the T- square fence 12 and the kni ves 17 in the cutter assem bly 1 in inches starting from 48 inches at the reference face and counting down to twenty-four inches at the far end, that is distal end of the scale. Thi s scale is used to cut forty-ei ght inch wi de panel s to a width between twent $y$-four and forty-ei ght inches. The length of the scal e is intended to be illustrative and not intended to be limiting as other lengths will work.
[0052] The mai $n$ body 1 i ncl udes a housi ng whi ch provi des a handlle. The housing, al ternati vely referred to herein as a handle, contai ns two knife bl ades 17 within the same cutting plane but oppositely positioned within the handl e. Each bl ade 17 is slidably mounted in corresponding opposite ends of the housing and each is Ii nked to the cutter head base 10 by Iinkage arns 18, the housing pi votally mounted by pi vot pin 4 or ot her pi vot mount nentber into base 10. The housi ng rotates about pi vot pin 4 in direction A by applying a downward pressure such as force F to either end of the housing that is, offset from pi vot pin 4. Rot ating the rocker housi ng causes each $\operatorname{arm} 18$ to engage its corresponding bl ade carrier 26
The end of each arm 18 which is mounted to carrier 26 , is mounted so as to slide al ong a substantially vertical sl ot 28 in the inward ends of the blade carrier. On the end which is rotated downwardly, arm 18 is driven agai nst the top end of sl ot 28 and ther eby transl at es force Finto travel of blade 26 in direction $E$ that is, gener ally orthogonally to the direction of force F, thereby ext ending and tensi oni ng the corresponding ret urn spring 14. Each return spring 14 is mount ed at its outward end to a corresponding inward end of its corresponding bl ade carrier 26. The inward ends of return springs 14 are mounted on opposite sides of pi vot pin 14 so as
to be anchored to the housing and substantially oppositely di sposed. As first bl ade 17 is bei ng extended, the ot her bl ade 17 (the second bl ade) under the influence of its correspondi ng return spring 14 and Iinkage arm18, is carried in its corresponding bl ade carrier 26 so as to al so slide in direction E until reaching the limit of its inward travel limit, at which point linkage armpin 37 mounting arm 18 to sl ot 28 sli des downwardly al ong sl ot 28, thereby permitting the cutter rocker 1 to conti nue to rotate so as to continue to extend the first blade fromthe downwardly di sposed end of the housing and to mai ntain the second bl ade in its retracted position. [0053] The opposite resilient urging of springs 14 returns the cutting head housing aut omatically to its neutral (blades retracted) level position as shown in FIG 3 when force F, that is the downward pressure of the oper at or's hand is removed. Centering ball spring 6 urges on centering pressure ball 7 through center depressi on 8 so as to rel easably hol $d$ the housi ng in the level position.
[0054] The wall board cutting tool is used by positioning the reference face 31 of the T-Square fence 12 agai nst the edge 32a of the wall board to be cut al ong its surface 32, with one side of the cutting tool placed at the starting edge 33b of the wall board panel to be cut. The position of the cutting tool al ong T-Square arm 11 i s adj usted by rel easing cam lock 20 and slidably positi oni ng the housing 1, by sliding base 10 to the desired di stance from wal I board edge 33a as indi cat ed by indi ci a poi nter 39 , i ndi ci a 40,41 and scal es 42 through 48 marked on T-Square arm11. Once positioned, the cutter is locked in place by rotating camlock 20 to its locked position. End 1a of housing 1 is then depressed downwardly towards edge 33b of the wal I board panel 32 so that the first blade, that is knife blade 17 in end 1a extends to engage with the wall board panel 32 at edge 33 b. The housing is then drawn in direction $G$ across the wall board surface 32 while mai nt ai ni ng the $T$-Square fence 12 in sliding contact with the wall board edge 33a as shown in FIGS. 6 and 7, resulting in a cut or score I i ne 34 extendi ng al nost entirely across the wall board panel 32. When the T-Square fence 12 reaches the end of the wal I board panel (or the desi red I ength of cut) as shown in FIG. 8, housi ng 1 is rotated back to its neutral position and then rotated in the opposite direction so as to depress end 1 b downwardly to the first so that the second blade, that is knife blade 17 in end 1 b is extended. The housing, base and T-Square are then dr awn back in the direction opposite to direction $G$ as shown in FIG 9 resulting in a completion cut or score Iine 35 which joins co-linearly with cut or score line 34.
[0055] The cutter of the present invention cuts wall board to both length and width. The pi voting double cutter housing 1 slides al ong on the T-Square arm 11 over a graduat ed ruler marked on arm 11 specifically I aid out for wall board. The ruler may be graduated in ei ghths of an inch- for cutting the four different lengths of wallboard it is scal ed in total inches or feet and inches measure. The outer edges of the rul er are I aid out for width cuts, zero to twenty four and twenty four to forty ei ght inches. The scal es and resol ution of the ruler gradations is not intended to be limiting. Nor is the use of the imperial measurements of feet and inches, as the ruler and scal es may al so be metric where and if appropriate.
[0056] By way of example, what follows is the example of cutting wall boards having di mensi ons of el even feet six and a quarter by forty one inches. The boards are stacked agai nst a wall.
[0057] First, a twel ve foot sheet length is sel ected. The base is slid al ong the ruler until the length measu-
rement is located bet ween the indi cator arrows. If the measurement was given in feet and inches it would be set at odd foot measure six and one quarter inches or one hundred thirty ei ght and a quarter inches if total inch measur ement was given. The base then locked in pl ace with the camlock. The edges of the fence is then set al ong the end of the wall board. Pressure is applied to the forward portion of the rocker housing so as to automatically extend the correspondi ng bl ade. The cutter is then drawn down towards the floor keepi ng the fence tight agai nst the end of the sheet and enough pressure is applied to the end of the cutter to score the paper with the knife bl ade. When the tool stops, that is runs into the floor, pressure is applied to the opposite end of the rocker housing and the cutter is then drawn upwards to score the last ei ght and one hal finches. The process is repeat ed on the back of the board. The sheet is then broken to I ength. Alternatively, the board is snapped after the initial score and the back paper then cut with a utility knife.
[0058] For the width cut, forty one inches is located on the scale and the rocker housing and base locked in pla ce. The T-Square is set on the top edge of the wal I board. The user can then either apply for ward pressure to the cutter head and draw the tool toward thenselves or apply pressure to the back of the cutter and push the tool away, sliding the tool al ong the top edge of the wallboard. The user stops at the end of the board and reverses the process to fini sh scoring the I ast ei ght and one hal $f$ i nches. The cut is compl et ed by scoring the back of the board or breaking and using a utility knife to cut the back paper.
[ 0059] When doing multiple width cuts froma single sheet, the user si mply uses a rasp to smooth the broken edge which will ease sliding the fence and keep the cut strai ght.
[0060] To cut in slightly off square situations, the user makes a sl ot at either end of the board usi ng the wall board cutter. A chalk line is inserted in one sl ot, stretched to the other sl ot and the line snapped. The sliding base is unl ocked and the cutter is used to help stabilize the cut following the chal $k$ line making it less wavy and for a cleaner break.
[ 0061] Additions to the wall board cutter may incl ude a rasp and a utility knife with quick rel ease mechani sms, thereby providing an integr at ed tool.
[0062] Cutter rocker housing 1 may in one entoodi nent incl ude i ndi vi dual head components 1c and 1d which, when assentol ed toget her, sandwi ch bl ades 17 and the correspondi ng bl ade carriers 26 within the bl ade channel s 49 defined in ends 1 a and 1 b between head components 1 c and 1 d. As better seen in FIG 12, both sides of blade carriers 26 have I ongitudi nally ext endi ng grooves 26a for sli di ng nating onto correspondi ngly si zed I ongitudi nally extending rails 50 mounted or formed on the interior planar, opposed-facing si de walls 49a of bl ade channel s 49

Each bl ade 17 has upper not ches 17a which mate with bl ade locat or tabs 27 within bl ade carrier 26 so that bl ade 17 is hel d rigidly in a rel easable mounting within carrier 26. Thus with bl ade 17 mounted within carrier 26 so as to extend one of the reversible cutting ends 17b fromthe open end 26b, the opposite cl osed end of carrier 26 is held within the correspondi ng channel 49 in sliding engagement on rails 50 and constrai ned in sliding transl ation by the mechanical linkage, as describe above, of carrier end 18a of arm 18 engaged by pin 37 to sl ot 28 for sliding movement in direction H of pin 37 in sl ot 28. The opposite ends of arns 18 are rotatably pinned to base 10 by base pins 36 . Thus arns 18 are free to rotate rel ative to both base 10 and bl ade carriers 26 . When bl ade carriers 26 are in their inward positions, for example when housing 1 is in its neutral position,
angle a may be in the range of $20-30$ degrees, and in a pref er red entoodi ment the I at ter 30 degrees.
[0063] As described above, springs 14 provi de the return bi asi $n g$ force bi asing the bl ade carriers 26 i nwardly in direction 1 towards the pi vot mount of housing 1 about pi vot pin, screw or bolt 4 journalled through aperture 4 a in head component 1 c , aperture 4 b in support bracket 9 and into rel easable mating such as threaded mating in aperture $4 c$ in head component 1d. Support bracket 9 may be in the form of an upstandi ng generally equil at er al triangle havi ng a rounded upper vertice. Support bracket 9 mounts into a triangul ar recess $9 a \operatorname{centrally}$ di sposed in head component 1d. Recess 9a is wider than the correspondi $n g$ di mensi ons of support br acket 9 so that housi ng 1 næy pi vot or rotate in direction A about the pi vot nount of the head components onto support bracket 9, pi votally mounted thereon by pi vot pin, screw or bolt 4 or ot her pi vot mentber. The head of bolt 4 and aperture 4 a are recessed within a stor age compartment 24 for spare bl ade stor age of a pl urality of spare blades 17 ' . The spare bl ades may be stored within the compartment and secured therein by cover pl ate 3 , itself secured by Iugs 5.
[ 0064] Base 10 incl udes a par al lel, opposed facing pair of channels 22a in base rail 22 which are sized for a snug sliding interlocking fit with corresponding channel s 11a al ong the si des of T - Square arm 11.
[0065] In the further preferred enbodi ment illustrated commencing in the expl oded pl an vi ew of FIG 20 , instead of sandwi chi ng support bracket 9 bet ween head components 1c and 1d, the main body $1^{\prime}$ of the cutting head mounts to a separate attaching plate 2 better seen in FIGS. 21 and 22 so as to sandwi ch ther ebet ween support br acket 9 . In thi s entoodi ment, in essence, the function served in the previ ous enbodi ment by head component 1c, is broken into two separ ate el enents, namely attaching pl ate 2, and cover plate three. As before, pi vot bolt 4 j ournal s through aperture 4a, and then through aperture $4 b$ in support bracket 9 and into threaded aperture 4c to ther eby pi vot ably mount the assentol ed head incl udi ng main body 1
attaching plate 2 and cover plate 3 about support br acket 9.
[0066] Cover plate 3 mounts to main body $1^{\prime}$ so as to encl ose attaching plate 2, thereby al so covering the openi ng into bl ade stor age 24 within attaching plate 2. Cover pl ate 3 is mount ed onto main body $1^{\prime}$ by means of, for example, threaded I ugs 5 jour nalled through apertures 3a so as to engage correspondi ng threaded apertures 2 a in attaching plate 2.
[0067] Guide rails 15 are formed in the interface bet ween main body 1 and cover pl ate 3 for slidably carrying blade 17 and its corresponding carrier 26 in both ends of the assentol ed cutting head. Thus the upper and I ower edges of blade carrier 26 slide in the corresponding rails 15 supported laterally by side guides 16 in cover plate 3 as better seen in the cross sectional view of FIG 23.
[0068] As will be apparent to those skilled in the art in the light of the foregoing di sclosure, many alterations and modifications are possible in the practice of this invention without departing fromthe spirit or scope ther eof. Accor di ngly, the scope of the invention is to be construed in accordance with the substance defi ned by the following clains.

## What is clai med is:

1. A wall board cutter comprising:
a rocker housi ng pi votally mounted about a pi vot mount on a base;
sai d base slidably mounted on a T- Square so as to selectively slide al ong an upper side of a ruler armof
sai d T- Square, sai d rocker housi ng sel ectively pi vo$t$ able about an axis of rotation parallel with said ruler arm,
an oppositely di sposed pair of cutting bl ade assentblies slidably mounted in oppositely di sposed copl anar array within a corresponding pair of caviti es in sai $d$ rocker housing, sai d pi vot mount bet ween said pair of cavities,
a drive Iinkage mounted so as to cooper ate bet ween said base and said pai $r$ of cutting blades alternat $i$ ngly to drive a cutting edge of a first blade assem bly of said pair of cutting bl ade assentol $i$ es from said rocker housing in a first direction upon pi voting of a corresponding first si de of said rocker housi ng downwardly and retain a second bl ade assentoly of said pair of cutting blade assentol $i$ es within sai $d$ rocker housing, or to dri ve said second bl ade assem bly from sai d rocker housi ng in a second di rection opposite said first direction upon pivoting of a correspondi ng second si de of said rocker housi ng, opposite said first side, downwardly and retain said first bl ade assently yithin said rocker housi ng,
wher ei $n$ when sai d first si de of said rocker housi ng is pi voted downwardly about said pi vot nount saidfirst bl ade assentbly is rotated downwardly into cutting engagenent with a sheet of wall board when said $T$ - Square is mounted on an edge of said sheet so as to I ay said ruler armflush on the sheet of wall board, and wherei $n$ when sai $d$ second si de of sai d rocker arm is pi voted domnwardly about said pi vot mount said second bl ade assentbly is rot at ed domwardly into cutting engagement with the sheet of wall board when sai $d$ T- Square is mount ed on the edge of the sheet so as to lay said ruler armflush on the sheet of wallboard;
and wherein sai $d$ rocker housing is adapted to provi de a handle for gripping by a user so that the user when gripping the handle transl at es said housing, bl ade assentl i es, base and T -Square over the sheet of wall board with said first or second bl ade assentblies in corresponding said cutting engagenent when sai d housing is si mult aneousl y pi vot ed downwar dly on said first or second side respectively.
2. The device of claim1further comprising resilient bi asi ng means mounted in sai $d$ housing and cooperating with said pair of cavities so as to resiliently bi as sai d pair of bl ade assentol i es inwardly of sai d housing into said cavities.
3. The device of clai m2 wherein said caviti es are el ongate so as to extend between oppositely di sposed first and second openi ngs in corresponding said first and second si des of said housing and wher ei $n$ said resilient biasing means includes first and second resilient bi asing means, and wherein said drive linkage urges said first or second bl ade assentblies Iinearly al ong sai d correspondi ng first or second cavities upon correspondi ng said downward pi voting of said first and second si des of said housi ng agai nst the return bi asing force of first and second resilient bi asi ng means respectively.
4. The device of claim3 Wherein said drive linkage i ncl udes first and second drive arns rot at ably mounted at first ends thereof to sai d base and rotatably mounted at opposite second ends ther eof to said first and second $b l$ ade assentbl $i$ es respectivel $y$.
5. The device of clai m 4 wher ei $n$ each of said first and second blade assentbl $i$ es has a substantially vertical sl ot formed ther ei $n$, and wher ei $n$ said second ends of said first and second drive arms are respectively slidably mounted in a correspondi ng said substantially vertical sl ot whereby upward rotational ranges of motion of said first and second si des of said housi ng are extended upwardly when said first and second bl ade assentlolies are
retracted into a stowed position within the correspondi ng said first or second cavity, wher eby the opposite si de, said second or first si de of said housing respectively, have a correspondi ng ext ended downward rotational range of motion about said pivot mount.
6. The device of clai m 5 wher ei $n$ said drive arms are I inear and wher ein said pi vot nount is a pi vot nenter ext endi ng bet ween said base and sai d housi ng al ong sai d axi s of rotation, and wherein said first ends of said drive arms are rotatably mounted on opposite adj acent si des of, and bel ow, sai d pi vot nenber, and wher ei $n$ sai $d$ substantially vertical slots are formed in inwardly di sposed ends of sai $d$ bl ade assentlol ies.
7. The devi ce of clai $m 6$ wher ei $n$ said housi $n g$ is el ongate so as to extend and be el ongate bet ween said first and second openi ngs so that said housi ng forns an el ongate handle extending I ongitudi nally al ong its I ength orthogonal ly from said axi s of rot ation.
8. The device of claim 7 wherein said first and second openi ngs are at outermost distal ends of said first and second si des of sai d housi ng.
9. The device of cl ai m 8 wherei n a st or age compartment is for med in said housing for removably storing spare bl ades to repl ace blades in said first or second bl ade assentol $i$ es.
10. The device of cl ai m 8 wherei n said base further compri ses a sel ectively rel easable lock for locking sai d base at a sel ected position al ong said ruler arm
11. The device of cl ai m 8 wher ei n sai d rul er arm has a
parallel array of length marki ngs extendi ng al ong a length of said rul er arm so that said bl ades are sel ectively positionable al ong said ruler armat known di st ances, marked in said length marki ngs, cor respondi ng to di mensi ons of the sheet of wall board when said T-Square is mounted on the sheet of wall board.
12. The device of cl ai m8 wher ein said first and second bl ade assentol y incl udes first and second bl ades renovably mounted so as to be carried in a corresponding first and second bl ade carrier mounted slidably in corresponding said first and second cavities for sliding transl ation al ong said first and second cavities in oppositely di sposed first and second Iinear directions substant ially radi ally outwardly of said pi vot mentber.
13. The devi ce of clai m 12 wher ei $n$ said first and second bl ades are held in said carriers by sandwi chi ng of i nner ends of said bl ades within said carriers so as to I eave outer ends of said bl ades di sposed outwardly of sai d carriers, and out wardly al ong said cavities so that when in extended positions said carriers are within said cavities adj acent correspondi ng sai d openi ngs and only said cutting edges protrude outwardly of sai d openi ngs.
14. The device of cl ai m 13 wher ei $n$ said substant $i$ al ly vertical slots are formed in inner ends of said carriers cor responding to sai $d$ i nner ends of sai $d$ bl ades.
