

Advanced Patent Prosecution Workshop 2021:
Claim Drafting & Amendment Writing

**Electromechanical Answers
for Problems #3 and 4**

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Electromechanical Answer to Problem #3

**Advanced Patent Prosecution Workshop 2021:
Claim Drafting & Amendment Writing**

Appl. No. 09/123,456
Amdt. dated November 12, 2005
Reply to Office action of November 1, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/123,456
Applicant : Smith, J.
Filed : : December 1, 2001
TC/A.U. : 323
Examiner : Jones, R.
Docket No. : PLI/1103
Customer No.: 88888

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Sir/Madam:

In response to the Office action of November 1, 2005, please amend the above-identified application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Amendments to the Drawings begin on page 6 of this paper and include both an attached replacement sheet and an annotated sheet showing changes.

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Remarks/Arguments begin on page 7 of this paper.

An Appendix including amended drawing figures is attached following page 11 of this paper.

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Amendments to the Specification

Please replace the paragraph beginning at Column 2, line 69, to Column 3, line 9, with the following amended paragraph:

The upper ends of the frames 3 and 4 each afford a pair of spaced limbs which are pivoted at 10 to a vertical web 13 of a generally U-shaped inverted channel 14 the detailed form of which is shown in FIGS. 2 and 3. Thus, referring to FIG. 3 the channel 14 also includes a vertical web 15 situated externally of the web 13, the two webs 13 and 15 being interconnected by a further horizontal web 17. The diagonal bars 9 are secured to the webs 13 and 15 at pivot points 18 at their upper ends and at their lower ends co-operate with slots 20 to allow for collapsing of the workbench. A handle may be provided to facilitate carrying the workbench.

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (canceled)

Claim 2 (currently amended): A workbench as claimed in claim ~~[[1]]~~ 6 in which ~~one of the vise said other top member~~ member~~[[s]]~~ is secured in a stationary manner to the supporting structure means and the other vise member is ~~movable~~ relatively to the supporting structure.

Claim 3 (currently amended): A workbench as claimed in claim 2 in which ~~the~~ each clamping devices ~~each~~ means comprises:

a screw threaded rod extending substantially at right angles to the vertical face of the stationary top member;

means for securing said screw threaded rod to said supporting means for rotational but not axial movement relative thereto; and

means for transmitting the rotational motion of said screw threaded rod to the movable top member to move said movable top member towards or away from the other top member.

Claim 4 (currently amended): A workbench as claimed in claim 3 in which each screw threaded rod is axially ~~fixed~~ secured to said supporting means at its end adjacent the stationary top member; and

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~~extends through~~ said rotational transmitting means comprises a nut secured to the movable top member.

Claim 5 (canceled)

Claim 6 (new): A portable workbench, comprising:

a pair of elongate top members disposed in side-by-side relationship with their upper surfaces lying in substantially the same plane to form a substantially planar working surface, each of said top members having an elongated vertical clamping face generally facing the elongated clamping face of the other top member to form therebetween an elongate vise;

means supporting said top members for movement of at least one top member generally towards and away from the other top member and angularly relative to said other top member in the plane of said working surface;

a pair of independently operable clamping means coupled between said top member supporting means and said at least one movable top member for moving said at least one movable top member towards and away from said other top member and angularly relative to said other top member to enable a workpiece to be gripped therebetween; and

collapsible base means movable between a collapsed position, for storage or transport of the workbench, and an erected position, for supporting said top members with said working surface at a convenient height.

Claim 7 (new): A workbench as claimed in claim 6 in which the base means comprises:

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a base structure; and

frame means interconnecting said base structure and said top member supporting means for movement between a collapsed position, in which said top members are in close juxtaposition to the base structure, and an erected position, in which said top members are spaced from and supported by the base structure at said working height.

Claim 8 (new): A workbench as claimed in claim 6 in which the two top members between them afford the complete working surface of the workbench.

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Amendments to the Drawings

The attached sheet of drawings includes changes to Fig. 1 and replaces the original sheet including Figs. 1 and 3. In Fig. 1, previously omitted reference number 62 has been added.

Attachments: Replacement Sheet

Annotated Sheet Showing Changes

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REMARKS/ARGUMENTS

The amendment to the specification (at Col. 3, line 9) and the addition of reference number 62 to Figure 1 of the drawings are being made to correct an obvious informality and to conform the specification to the drawings as originally filed. The handle 62, which is clearly shown in original Figure 1 and is of apparent function, was not explicitly referred to in the specification or identified by reference number in the drawings. No new matter is introduced.

Claims 1 and 5 have been rewritten as claim 6, claims 2-4 have been amended, and new claims 7 and 8 have been added to recite additional advantageous features of the applicant's invention. Currently in the application, therefore, are claims 2-4 and 6-8, of which claim 6 is an independent claim.

Claims 1-5 were rejected under 35 U.S.C. § 112 for indefiniteness for functional claiming (claims 1 and 5), lack of antecedent basis (claim 2), and incompleteness (claims 3 and 4). Claims 1 and 5 have been combined and rewritten as new claim 6 to set out the required structural components and interrelationships to perform the recited functions. Similarly, claims 3 and 4 have been amended to avoid the instances of structural incompleteness noted by the Examiner and to otherwise improve the form of the claims. Claim 2 has been amended to eliminate the lack of antecedent basis in its parent claim. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112 are respectfully requested.

Claims 1-4 were rejected under 35 U.S.C. § 102 as anticipated by either Thomas or Fleming. Reconsideration and withdrawal of this rejection are respectfully requested insofar as it might be asserted against any of the claims currently in the application.

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As defined in independent claim 6 and its dependent claims, the present invention concerns a portable workbench having a substantially planar work surface formed by a pair of side-by-side elongate top members which also have opposed clamping faces for forming an elongate vise. Independently operable clamping devices are provided which allow at least one top member (e.g., the rear top member) to be moved towards and away from, and angularly relative to, the other top member to grip workpieces therebetween including tapered and other non-uniform workpieces. Further, the claimed portable workbench includes a collapsible base structure which is movable between a collapsed, storage position and an erected, working position. Neither Thomas nor Fleming disclose this workbench structure or afford its advantages.

The Thomas patent concerns a relatively-heavy single-purpose clamping apparatus for clamping doors, window sash and the like, not a portable general-purpose workbench in the sense of applicant's invention. It completely lacks any suggestion of a collapsible base structure. The clamping bars 2, 3 of Thomas are L-shaped members with upstanding vertical flanges 57, so that, unlike the claimed invention, their upper surfaces do not provide a co-planar horizontal working surface. Further, the hand-operated screw-threaded devices 7 of Thomas are not used to clamp the workpiece between the clamping bars 2, 3; rather, the screw-threaded devices 7 are merely used to adjust the spacing between the rear clamping bar 3 and the front clamping bar 2 to accommodate different sized doors or the like (see page 2, lines 97-103). The clamping force is applied to the workpiece by a foot-operated treadle mechanism 44, etc. (see Fig. 3), which urges the front clamping bar 2 rearward towards the rear clamping bar 3 (see page 2, lines 69-85).

The Fleming patent, while disclosing a sawhorse/workbench, does not disclose either structure for supporting the clamping member 26 for angular movement relative to the stationary

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top member 15 or independently operable clamping devices for angling the clamping member 26 relative to the stationary top member 15. In particular, Fleming nowhere discloses or suggests that the clamping member 26 should be capable of angular displacement relative to the stationary member 15, nor is any structure provided whereby such angulation would inherently result. As the screw rod 27 at one end of the device is advanced through the associated threaded boss 29, it will very quickly bind up in the boss 29, as the member 26 attempts to angle, unless the other screw rod 27 is also correspondingly advanced. Consequently, the two screw rods 27 must be operated simultaneously in order to clamp a workpiece between the vise members 15 and 26. Also, there is no supporting structure for Fleming's movable clamping member 26. Instead, it simply hangs on the screw rods 27, and is therefore not useful as a working surface for typical workbench operations.

Although Fleming discloses that his sawhorse/workbench may be sold in a "knocked down" state to facilitate shipment and assembly, once assembled it is not thereafter movable between collapsed and erected positions as called for by applicant's claims. Indeed, substantial disassembly of the device would be required, and that clearly does not correspond structurally or functionally to the claimed invention.

Claim 5 was rejected under 35 U.S.C. § 103 as obvious over either Thomas or Fleming in view of Larson. As noted, claim 5 has been incorporated in claim 6 in response to the indefiniteness rejection under 35 U.S.C. § 112. Insofar as this obviousness rejection might be asserted against claim 6, it is without basis and should be withdrawn.

Larson discloses a traditional wall-mounted workbench of the type typically provided with a conventional add-on metal vise (Col., 4, lines 50-53), and in that context discloses the use

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of a folding leg structure adapted to be folded into a compact closed casing for shipment or storage (Col. 1, lines 14-17). Thus, even if Larson were properly combinable with the Thomas or Fleming devices under § 103—which it is not—the resulting structure still would not provide the claimed invention or realize its advantages in respect of providing an integral elongate worktop and vise capable of gripping tapered or other irregularly shaped workpieces.

Furthermore, the Larson patent contains no disclosure that would lead one skilled in the art to modify either the Thomas clamping apparatus or the Fleming sawhorse/workbench in the manner proposed by the Examiner. The Thomas apparatus is a large, single-purpose door or sash clamp, and there is no indication that it could or should be made portable. It is, moreover, not apparent how the Larson folding leg structure could be incorporated into the Thomas device without wholesale redesign or abandonment of the foot-treadle clamping structure of the Thomas clamp.

Similarly, the wall-mounted Larson workbench, which obtains rigidity from being attached to the wall 14 by screws 16, would not suggest the replacement or modification of Fleming's traditional splay-legged sawhorse legs 11 and cross braces 16 with Larson's vertical folding corner legs 60. To do so would greatly reduce the stability, and thus the utility, of the Fleming device.

In view of the foregoing, all of the claims in the application define patentably over the prior art and are allowable. We respectfully submit that the application is in condition for allowance in all respects.

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Respectfully submitted,

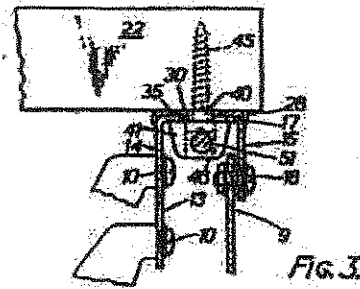
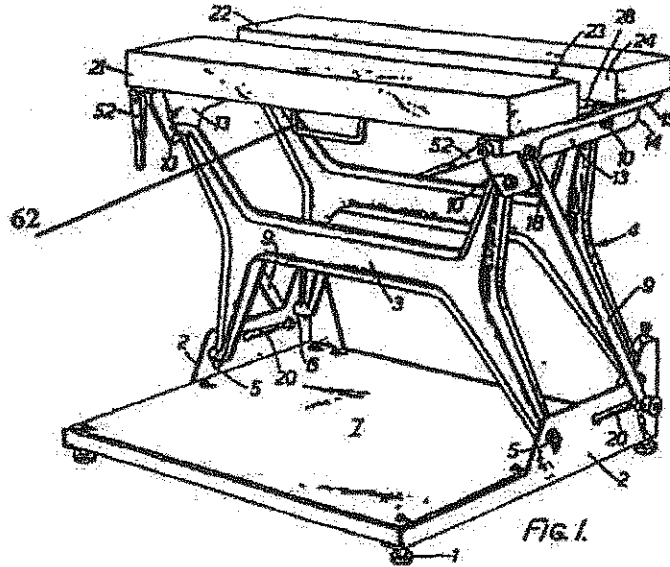
[Attorney Name]
Registration No.

Attorney for Applicant
[Attorney's Telephone No.]

Attachments

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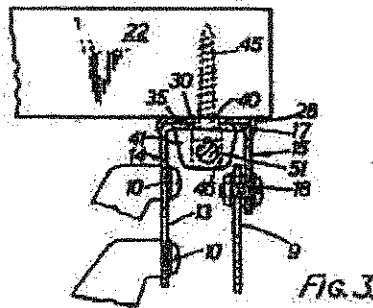
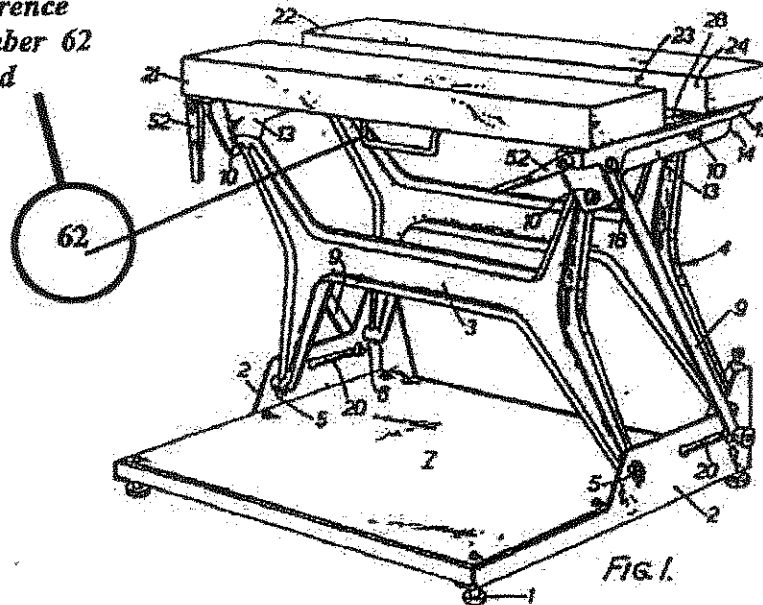
Replacement Sheet



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Annotated Sheet Showing Changes

Reference
Number 62
added



Electromechanical Answer to Problem #4

**Advanced Patent Prosecution Workshop 2021:
Claim Drafting & Amendment Writing**

ADVANCED CLAIM DRAFTING AND
AMENDMENT WRITING WORKSHOP

ELECTRO-MECHANICAL SECTION

AMENDMENT WRITING
CLASSROOM MODEL ANSWER IV

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of
Stephen J. Yuhasz et al.
Serial No.: 08/773,776
Filed: _____, 1994
For: IMPROVED PUSH BUTTON SWITCH

New York, New York
Date: November __, 2004
Group Art Unit: 214
Examiner: J. R. Scott

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Sir:

In response to the Office Action mailed August 15, 2004, please amend the above application as follows:

FEE CALCULATION

Any additional fee required has been calculated as follows:

_____ If checked, "Small Entity" status is claimed.

NO CLAIMS AFTER AMENDMENT	HIGHEST NO. PREVIOUSLY PAID FOR	EXTRA PRESENT	RATE	ADDIT. FEE
TOTAL	5 MINUS	20 * = 0 X	(\$9 SE or \$18)	\$0
INDEP.	1 MINUS	3 ** = 0 X	(\$42 SE or \$84)	\$0
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			X (\$140 SE or \$280)	\$0
* not less than 20 ** not less than 3			TOTAL	\$0

If any additional payment is required, a check which includes the calculated fee of \$0.00 (OFGS Check No. _____) is attached.

In the event the actual fee is greater than the payment submitted or is inadvertently not enclosed or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 15-0700.

CONTINGENT EXTENSION REQUEST

If this communication is filed after the shortened statutory time period had elapsed and no separate Petition is enclosed, the Commissioner of Patents and Trademarks is petitioned, under 37 C.F.R. § 1.136(a), to extend the time for filing a response to the outstanding Office Action by the number of months which will avoid abandonment under 37 C.F.R. § 1.135. The fee under 37 C.F.R. § 1.17 should be charged to our Deposit Account No. 15-0700.

SUMMARY OF AMENDMENTS

1. X If checked, an abstract (an amended abstract) is submitted herewith.
2. X If checked, amendment(s) to the drawings are submitted herewith.
3. X If checked, amendment(s) to the specification are submitted herewith.
4. X If checked, amendment(s) to the claims are submitted herewith.

AMENDMENT(S) TO THE SPECIFICATION

Please replace the paragraph beginning at column 3, line 24 to column 3, line 28, with the following rewritten paragraph:

A face plate 184 is releasably coupled to the front surface of the head sink 180 whose rear surface supports an insulation housing 181 which preferably houses the stationary and movable contacts 216, 215 of the mechanical switch forming part of the bush button switch. As shown in Fig. 5, the face plate 184 carries a switch plate on it. On that plate is formed a switch 230, which is electrically connected with a signal lamp 231 on the face plate. The switch 230 is mechanically connected with the push button 190, described below, to be operated by the button to turn on the lamp 231 when the button is pushed in.

IMPROVED PUSH BUTTON SWITCH

ABSTRACT OF THE DISCLOSURE

A push button electric switch:

A face plate with an opening through it. A push button behind the opening in the plate. Springs bias the push button against the rear of the plate and permit the plate to tilt at various orientations. A post supports the movable contact and the post is biased against the center of the button. The movable contact engages a stationary contact in the switch. Pressure on the push button off alignment with the post causes the push button to tilt. A heat sink behind the face plate and engageable by the push button pushed in.

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A push button switch, comprising:

~~A~~ a face plate having a front and an opposite ~~said~~ rear; ~~a round the face plate shaped to~~
define an opening through the face plate from the front to ~~said~~ the rear;

~~inside the opening is located~~ a push button located at the opening and, ~~which~~ is behind the ~~backside~~ rear of the face plate, the push button also having a front side and an opposite rear side; ~~at least one and preferably~~ a plurality of first springs biasing the push button against the rear of the face plate, and the first springs urging the push button to be moved off the rear of the face plate and enabling the push button to tilt at various tilt orientations with respect to the rear of the face plate;

a movable electric contact ~~on,~~ a ~~movable post shaped~~ support for the movable electric contact, the support being in the shape of a post, the support ~~also~~ being located between the movable contact and ~~either~~ the second rear side of the push button; a second spring for biasing the support toward the second rear side of the push button;

a stationary electric contact supported stationary in the switch and supported in opposition to the movable contact, and normally spaced away from the movable contact when the push button is at the rear of the face plate;

the second rear side of the push button having one central location against which the second spring normally biases the movable contact post shaped support~~[[.]]~~;

The the support, the push button and the face plate cooperating so that when the push button is pushed toward the stationary contact by force applied to the push button at a second location on the second front side which is off the first location on the second rear side, the push

button pushes the support to move the movable contact against the stationary contact, and the push button second front side contacts the rear of the face plate at a third location which is at the opposite side of the first location from the second location, whereby the movable contact engages the stationary contact regardless of the position of the second location on the push button[.];

a heat sink supported behind the rear of the face plate and behind the push button; the heat sink having fins thereon extending forwardly in the direction toward the push button; at least one fin extending sufficiently toward the push button as to limit the movement of the push button to restrict the motion of the movable contact toward the stationary contact.

2. (Currently Amended) The improved push button switch of claim 1, comprising an wherein the said stationary surface which surrounds the entire said opening.

3. (Original) TYPE OUT CLAIM.

4. (Original) TYPE OUT CLAIM.

5. (Currently Amended) The push button of claim 1, further comprising a switch on the face plate and connected with the push button for sensing the position of the push button, a signal lamp connected with the switch and sitting located on the face plate and operable by the switch for indicating when the push button has been pushed in.

AMENDMENT TO THE DRAWING(S)

Fig. 5 has been amended. The attached sheet of formal drawing replaces the original sheet including Fig. 5.

REMARKS/ARGUMENT

The claims were rejected under 35 U.S.C. § 112 for lack of antecedents. The claim amendments avoid inferential claiming and add missing antecedents.

Claims 1 and 5 were rejected for reciting elements not shown in the drawings. The specification and drawing Fig. 5 have both been amended to add elements claimed in original claims 1 and 5, but not shown, including the shape of the opening 183, and the lamp and switch 231, 230 now in Fig. 5. Antecedent support for the inclusion of those elements is found in the claims originally filed. It is submitted that the amendments to the drawings and specification do not introduce new matter.

Claims 1-5 were rejected under 35 U.S.C. § 102 over Tsen, et al. Reconsideration is solicited. Claim 1 has been amended to include features of the heat sink. Claim 1 is now directed toward a push button switch having a “heat sink having fins . . . at least one fin. . .to limit the movement of the push button”. The presence of fins 212 on the heat sink 180 for obstructing the inward motion of the push button 190 is not shown or suggested in Tsen, et al. or in any of the other prior art. Claim 1 now recites a push button having heat sink fins that perform both a heat sink function and a mechanical protective function. This is a substantial improvement over the prior art. Accordingly, claims 1-5 are allowable over Tsen, et al.

Claims 1-5 were rejected over Finegan, Jr. in view of Tsen et al. Reconsideration is solicited.

Finegan, Jr. is concerned with a switch that has a switch operator that is not a push button and that does not move to and away from the heat sink. Instead the switch lever moves parallel to the fins of the heat sink. Therefore, the heat sink of Finegan, Jr. performs a different function than that recited in applicant's claims. It is submitted that it would not be obvious to combine the heat sink of Finegan, Jr. with the push button of Tsen, et al. Tsen, et al. does not suggest the need

for a heat sink. Tsen, et al. does not suggest the need for any means that blocks rearward or inward motion of the push button on the switch. Combining Finegan, Jr. with Tsen, et al. therefore would not be an obvious modification of either of those references, but would instead be an unobvious addition to either of the references and would rise to the level of the invention. As a result, claims 1-5 are allowable over that combination of references.

Pursuant to 37 C.F.R. §1.97(c), applicant encloses an Information Disclosure Statement identifying prior art cited in a corresponding non-U.S. application. The fee set forth in 37 C.F.R. §1.17 (P) is also enclosed.

The reference cited in the Information Disclosure Statement is U.S. Patent 3,348,014 to Brown. The amendments to claim 1 discussed above distinguish claim 1 from Brown for the same reasons that they distinguish claim 1 from Tsen, et al. Brown also lacks the heat sink with fins 212 that limit movement of the push button 190, and therefore Brown avoids the prior art. claims 1-5 are allowable over Brown.

In view of the amendments to the application and the foregoing remarks, allowance of claims 1-5 is solicited.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November, ____ 2004:

Robert C. Faber

(Name of applicant, assignee or Registered Representative)

Signature

November, 2004

Date of Signature

Respectfully submitted,

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Telephone: (212) 382-0700

RCF:dmk:bam