Advanced Patent Prosecution Workshop 2021:

Claim Drafting & Amendment Writing

Electromechanical Answers for Problems #1 and 2

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Electromechanical

Answer to Problem #1

Advanced Patent Prosecution Workshop 2021:

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ADVANCED CLAIM DRAFTING AND

AMENDMENT WRITING WORKSHOP

ELECTRO-MECHANICAL SECTION

CLAIM DRAFTING

HOMEWORK SAMPLE ANSWER 1

1. A portable workbench, comprising:

a pair of elongate top members disposed in side-by-side relationship having 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 spaced apart lengthwise of said top members and coupled between said 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 grip a workpiece between said clamping faces; and

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

2. The workbench of claim 1 wherein said other top member is secured in a stationary manner to the supporting means.

3. The workbench of claim 2 wherein said supporting means includes a pair of horizontal transverse supports extending beneath the top members, the transverse supports affording horizontal slide surfaces upon which the movable top member bears during its movement.

4. The workbench of claim 3 wherein each clamping means comprises:

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

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

a threaded nut carried by the screw threaded rod for movement axially thereof upon rotation of said screw threaded rod; and

means for drivably coupling said nut to the movable top member and for permitting angular movement of said movable top member relative to said nut.

6. The workbench of claim 1 wherein the pair of top members between them afford the complete working surface of the workbench.

7. The workbench of claim 1 wherein the collapsible base means comprises:

a base structure; and

frame means interconnecting said base structure and said top-member supporting means for movement between said 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.

8. A portable, collapsible workbench adapted to be carried by hand to a site of use by an individual and there erected in a free-standing manner, comprising:

bench top means for defining a substantially planar, generally rectangular working surface, said bench top means including front and rear, laterally elongated vise members, the upper surfaces of which are substantially co-planar and form the working surface of the workbench and laterally elongated edges of which are arranged in side-by-side facing relation to provide workpiece clamping surfaces extending over the full lateral extent of said vise members;

means supporting said vise members for front-to-rear movement relative to one another in the plane of the working surface while constraining said vise members against any substantial movement out of said plane;

a pair of laterally spaced-apart, hand-operable means operatively coupled between said front and rear vise members for moving said vise members relative to one another in the front-to-rear direction to enable a workpiece to be clamped between said clamping surfaces; and

collapsible leg means, including at least two leg frames pivotally connected at the upper ends thereof to said vise member supporting means, for folding between an erected condition, in which said leg frames are spaced apart and support said bench top working surface at a convenient working height above the floor, and a folded condition, in which vise member supporting means is juxtaposed to said leg means and said leg frames are folded compactly together.

9. The workbench of claim 8 wherein said vise member supporting means and said hand-operable means comprise front-to-back extending members located adjacent the lateral ends of said vise members such that the region underlying the vise members between said front-to-back extending members is free to receive a workpiece to a depth below the clamping surfaces of said vise members.

10. The workbench of claim 9 wherein the ends of said vise members extend laterally beyond said front-to-back extending members so as to permit a workpiece to be clamped between said vise members laterally outside of said vise member supporting means and said hand-operable devices.

11. The workbench of claim 10 wherein said vise member supporting means and said hand-operable means underlie said vise members such that the full area of each of said clamping surfaces is unobstructed and available for clamping a workpiece.

12. The workbench of claim 8 wherein said collapsible leg means further comprises a base member pivotally connected to the lower ends of said leg frames, said base member extending generally parallel to and at least in part to the front of said bench-top working surface when said leg means are in the erected position, so as to provide a foot-thrust surface for the workbench user.

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Answer to Problem #2

Advanced Patent Prosecution Workshop 2021:

Claim Drafting & Amendment Writing

ADVANCED CLAIM DRAFTING AND

AMENDMENT WRITING WORKSHOP

ELECTRO-MECHANICAL SECTION

CLAIM DRAFTING

MODEL ANSWER II

U.S. Patent 4,737,609 has claims which will be revealed to you following the Amendment Clinic that will involve the same disclosure.

A proposed set of claims for this disclosure follows:

1. A push button switch, comprising:

a face plate having a front and an opposite rear; an opening through the face plate from the front to the rear;

a push button located at the opening and behind the rear of the face plate, the push button having a second front side and an opposite second rear side; a first spring biasing the push button against the rear of the face plate, and the first spring enabling the push button to be moved off the rear of the face plate and tilted at various tilt orientations with respect to the rear of the face plate;

a movable electric contact, a support for the movable electric contact, the support being located between the movable contact and 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 location against which the second spring normally biases the movable contact support;

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.

2. The push button switch of claim 1, wherein the opening in the face plate has a geometric center and the first location on the face plate is at the geometric center of the opening in the face plate.

3. The push button of claim 1, further comprising a heat sink supported behind the rear of the face plate and behind the push button.

4. The push button of claim 3, wherein the heat sink has 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.

5. The push button of claim 1, wherein the push button has a periphery and has a peripheral flange around the entire periphery, the peripheral flange being shaped to be biased into engagement with the rear of the face plate around the entire opening through the face plate.