

What is claimed is:

1. A packer for wells, comprising:

a body having a tubular shape;

a sealing element having an upward end and a downward end and disposed around the

5 body;

a first prop upward of the sealing element; and

a second prop downward of the sealing element, wherein the first prop is configured to wedge under the upward end of the sealing element and the second prop is configured to wedge under the downward end of the sealing element to push the sealing element outward at both the
10 upward end and the downward end.

2. The packer of claim 1, wherein the first prop is formed as part of the body.

3. The packer of any of the preceding claims, wherein the second prop is movable relative
15 to the body to slide upward and wedge under the downward end of the sealing element.

4. The packer of claim 3, wherein the second prop is configured to push the sealing element up onto the first prop when wedging under the downward end of the sealing element.

20 5. The packer of any of claims 3 or 4, further comprising a lower cover sleeve slidably disposed around the second prop and including a lower pushing face configured to push the sealing element upward to wedge the first prop under the upward end of the sealing element.

6. The packer of any of claims 3-5, further comprising an upper cover sleeve slidably disposed around the first prop and including an upper pushing face configured to limit upward movement of the sealing element after the first prop is wedged under the upward end of the sealing element.

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7. A packer for a well, comprising:
a body having a tubular shape;
an upper sealing element, a middle sealing element, and a lower sealing element disposed around the body;

10 a first prop upward of the middle sealing element and downward of the upper sealing element; and

a second prop downward of the middle sealing element and upward of the lower sealing element, wherein the first prop is configured to wedge under the upper sealing element to push the upper sealing element outward, and wherein the second prop is configured to wedge under
15 the lower sealing element to push the lower sealing element outward.

8. The packer of claim 7, wherein one or both of the first and second props are configured to compress the middle sealing element to outwardly expand the middle sealing element.

20 9. The packer of claim 8, wherein the first prop includes a flat downward surface.

10. The packer of any of claims 8 or 9, wherein the second prop include a flat upward surface.

11. The packer of any of claims 7-10, further comprising an upper anti-extrusion ring disposed upward of the upper sealing element and configured to resist and/or prevent upper axial extrusion of the upper sealing element.

5 12. The packer of any of claims 7-11, further comprising a lower anti-extrusion ring disposed downward of the lower sealing element and configured to resist and/or prevent lower axial extrusion of the lower sealing element.

10 13. The packer of any of claims 11 or 12, wherein the anti-extrusion ring includes a plastic, non-metallic or metal material.

14. The packer of any of claims 7-13, wherein the first and/or second prop includes plastic or metal material.

15 15. The packer of any of claims 7-14, wherein the sealing element includes an elastic material.

16. The packer of any of claims 7-15, further comprising an upper and/or lower backup ring disposed outwardly adjacent the upper sealing element and/or lower sealing element,
20 respectively.

17. The packer of claim 16, wherein the upper and/or lower backup ring includes at least one of Teflon, wire mesh, thermal-plastic or other non-metallic material.

18. The packer of any of claims 16 or 17, further comprising an upper and/or lower support shoe disposed outwardly adjacent the upper and/or lower backup ring, respectively.

5 19. The packer of claim 18, wherein the upper and/or lower support shoe includes metal.

20. The packer of any of claims 7-19, further comprising an upper cone slidably disposed around the body and an upper slip, wherein the upper cone is configured move upward to outwardly deploy the upper slip.

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21. The packer of claim 20, wherein the upper cone includes an upper pushing face configured to limit upward movement of the upper sealing element.

22. The packer of any of claims 7-21, further comprising a lower cone slidably disposed
15 around the body and a lower slip, wherein the lower cone is configured move upward to push against the lower sealing element or the lower anti-extrusion ring, wherein the lower slip is configured to move upward relative to the lower cone to be outwardly deployed.

23. A method for setting a well packer, comprising:
20 propping an upward sealing element or an upward portion of a single sealing element to create a first propped seal point; and
propping a downward sealing element or a downward portion of the single sealing element to create a second propped seal point.