

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte MICHAEL ALCHIN

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Appeal No. 96-0873  
Application 08/132,380<sup>1</sup>

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ON BRIEF

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Before ABRAMS, FRANKFORT and STAAB, Administrative Patent Judges.

STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 1 and 10-17, all the claims currently pending in the application.

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<sup>1</sup> Application for patent filed October 6, 1993.

Appellant's invention pertains to a spring balance mechanism to provide a balance force for a vertically sliding window. Independent claim 10, a copy of which is appended to appellant's brief, is illustrative of the appealed subject matter.

The references of record relied upon by the examiner in support of a rejection under 35 U.S.C. § 103 are:

De Vries et al (De Vries)	2,577,953	Dec. 11, 1951
Maynard	2,729,418	Jan. 3, 1956

Claims 1 and 10-17 stand rejected under 35 U.S.C. § 103 as being unpatentable over De Vries in view of Maynard.

Independent claim 10 is directed to a balance mechanism for a window panel comprising telescoping tubes and an elongated spring within the tubes. The claim requires that, in use, a combination of friction force between the telescoping tubes and the spring force of the elongated spring provides the balance force that maintains the window panel at a desired height relative to a window jamb. Independent claim 1 contains similar limitations.

De Vries pertains to a balance mechanism for a window sash. The Figure 2 embodiment comprises telescoping tubes 1, 2, an elongated spring 3, 4, a pair of spiral strips 9, and a tube member 7 having slotted ends. The elongated spring is located within the tubes for applying a spring force to the tubes. Each of the spiral strips 9 have one end secured to a respective telescoping tube and another end received in one of the slotted

ends of the tube member 7. In addition, the elongated spring is secured to tube member 7 by a pin 6 located intermediate the ends of the tube member. One of De Vries's telescoping tubes is secured to the window sash and the other is secured to the window jamb. In use, as the window sash is lowered, the elongated spring is compressed. At the same time, the cooperation between the slotted ends of the tube member 7 and the spiral strips 9 causes the tube member to rotate and wind up the elongated spring. A balancing force is thus provided by a combination of (1) the axial compression of the elongated spring; and (2) the vertical components of forces acting on the spiral strips as a result of winding up the elongated spring (column 2, line 27 through column 3). The mechanism is designed such that the net effect of forces (1) and (2) remains constant (column 3, lines 4-16).

Maynard pertains to a retractable anchor for mounting in the floor of a compartment of an aircraft or the like for providing an anchoring point for a structure such as a chair. The anchor comprises an outer tubular member 1 mounted in the floor of the compartment, and an attachment member 4 slidably received therein. A compression spring 6 is provided to bias the attachment member to a projected position, see Figure 2, whereby aperture 11 in the attachment member may be utilized as an anchor point. Bayonet connection means 8, 9 is provided between the members 1 and 4 such that when engaged, the attachment member 4 is held in a retracted position, see Figure 1, flush with the floor.

In rejecting the claims as being unpatentable over De Vries in view of Maynard, the examiner concedes that De Vries does not disclose the use of frictional forces between the telescoping tubes to inhibit relative movement therebetween, or the use of such forces in conjunction with spring forces to maintain the window panel at a desired height. The examiner contends, however, that (1) the members 1, 4 of Maynard are in contact with one another; (2) this contact results in a frictional force between members 1 and 4; (3) in view of this circumstance it would have been obvious to one of ordinary skill in the art to have provided a “contacting fit” between the tubes of De Vries “to provide a more solid connection” (answer, page 3); and (4) the thus modified De Vries device would correspond to the claimed subject matter.

We cannot accept this position. Assuming *arguendo* that the examiner is correct in his position that Maynard is analogous art<sup>2</sup>; a proposition which we find to be questionable, it is our view that the collective teachings of the applied references would not have suggested the claimed subject matter to one of ordinary skill in the art. With respect to De Vries, the examiner does not contend, and it is not apparent to us, that the telescoping tubes 1, 2 cooperate with each other to generate frictional forces of any meaningful

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<sup>2</sup>Appellant strenuously argues on pages 4-7 of the brief that Maynard is nonanalogous art with respect to the claimed invention.

magnitude.<sup>3</sup> As to Maynard, it is our opinion that the examiner's determinations regarding the scope and content of this reference are based on a hindsight reading of the disclosure thereof rather than on anything fairly taught by the reference. As aptly noted by appellant on page 10 of the brief, Maynard is designed to ensure that the tubular member 4 moves to its outwardly extended position irrespective of any frictional forces between members 1 and 4. Accordingly, even if the examiner is correct that members 1 and 4 of Maynard are in frictional contact, Maynard's silence as to utilizing any such frictional forces that may exist to inhibit relative movement between members 1 and 4 undermines the examiner's position that Maynard would have suggested the kind of modification of De Vries required to arrive at the claimed subject matter. In this regard, Maynard is no better than De Vries, which the examiner concedes is devoid of any teaching of using frictional forces to inhibit relative movement of the telescoping tubes.

On page 3 of the answer, the examiner has taken the position that "[e]ven with negligible frictional force, the combinational [sic] of the spring force and friction force would provide a balance force as claimed since in numerous cases the spring force alone would

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<sup>3</sup>On pages 8 and 9 of the brief, appellant appears to concede that in De Vries frictional forces result from the engagement of the spiral member with the slot of element 14 (Figure 2) or the slotted ends of tube member 7 (Figure 1), and that these forces, to a minor extent, act to provide a balance force. We note, however, that the appealed claims require that frictional forces resulting from an engagement between *the telescoping tubes* act in combination with spring forces to provide the balance force.

be sufficient to provide a balance force to hold a window at a desired placement.” This position is without merit. In the absence of any supporting evidence or logical reasoning to support the examiner’s position, it is not clear why the combination of only the spring force and the frictional force between *the telescoping tubes* of De Vries would necessarily be sufficient to provide a balance force to hold the window in place.

The decision of the examiner is reversed.

**Reversed**

NEAL E. ABRAMS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
CHARLES E. FRANKFORT	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
LAWRENCE J. STAAB	)	
Administrative Patent Judge	)	

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