

authority, then it seems to us that the indefiniteness arising from the use of the words “preferably” and “preferred” is fatal to the claim.

The third claim, however, is clearly infringed by the appellant’s appliance and, in the view we take of the case, the fifth claim becomes immaterial. We think the decree should be amended to limit it to the third claim in the specification. Subject to this variation, the appeal should be dismissed with costs.

*Subject to a variation in the decree appealed from,
appeal dismissed with costs.*

Solicitor for the appellant, J. J. Lynn.
Solicitors for the respondent, W. A. Windeyer & Co.

J. B.

Appl Doh- meier v Eisen-Und Drahtwerk Erlau Aktien- gesellschaft 13 IPR 131	Appl Kwan v Queensland Corrective Services Commission (1994) 31 IPR 25	Refd to Winnerv Haigh & Associates (Australia) Pty Ltd (1996) 33 IPR 215	Refd to Genentech Inc v Celtrix Pharmaceu- ticals Inc (1995) 34 IPR 162	Appl Innovative Agricultural Products v Crawshaw & Atkinson 35 IPR 643
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[HIGH COURT OF AUSTRALIA.]

ACME BEDSTEAD COMPANY LIMITED. . . APPELLANT ;
PLAINTIFF,

AND

NEWLANDS BROTHERS LIMITED . . . RESPONDENT.
DEFENDANT,

ON APPEAL FROM THE SUPREME COURT OF
NEW SOUTH WALES.

*Patent—Validity—Subject matter—Obvious addition to existing device—Application
of well-known mechanism to obvious use—Prior publication.*

In 1929 the plaintiff obtained letters patent for improvements to hospital beds, the object of the patent being to allow one end of the bed to be raised and to facilitate the moving of the bed. The elevating means consisted of a hollow member attached to the end of the bed between the legs and having an opening therein, a telescopic post (with teeth) non-rotatably mounted in this member and having castor feet, and a pawl and ratchet device for elevating

H. C. OF A.
1936.
KAUZAL
v.
LEE.
Dixon J.
McTiernan J.

H. C. OF A.
1937.
SYDNEY,
Sept. 1-3 ;
Nov. 24.
Latham C.J.,
Starke and
Dixon JJ.

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.

v.
NEWLANDS
BROTHERS
LTD.

and lowering the bed, the pawl going through the opening of the outer member and engaging in the teeth which constituted the ratchet. The 1929 patent differed from a patent granted to the plaintiff in 1928 in that a ratchet and pawl device was substituted for a device of openings in tubes and a lever with a curved bolt as a means of elevating the bed and in that a non-rotatable post was substituted for a round one.

Held that the alleged invention lacked subject matter :—

By *Latham C.J.* and *Starke J.*, because the substitution of the ratchet and pawl device for the previous means of elevating the bed was an obvious course to adopt for the attainment of the desired objective.

By *Dixon J.*, because the alleged invention simply applied a well-known and well-understood piece of mechanism to an obvious use.

Per Starke J. : To establish prior publication it is not necessary to prove common knowledge ; public knowledge is sufficient, whether the invention be known to many or few.

Decision of the Supreme Court of New South Wales (Full Court) : *Acme Bedstead Co. Ltd. v. Newlands Brothers Ltd.*, (1937) 37 S.R. (N.S.W.) 234 ; 54 W.N. (N.S.W.) 23, affirmed.

APPEAL from the Supreme Court of New South Wales.

Acme Bedstead Co. Ltd., the plaintiff in a suit brought in the equitable jurisdiction of the Supreme Court of New South Wales, was a company which carried on business in that State as a manufacturer of bedsteads. It was the registered proprietor of letters patent, dated 12th December 1929, for an invention for improvement in hospital bedsteads. It claimed that the defendant, Newlands Brothers Ltd., which also carried on business in New South Wales as a manufacturer of bedsteads, had infringed these letters patent.

The defendant denied that it had infringed the plaintiff's letters patent and alleged that the patent was and always had been invalid for the reasons appearing in its particulars of objection. These particulars were (a) want of novelty ; (b) want of subject matter ; (c) want of utility ; and (d) that the complete specification and claims did not define adequately the extent of the monopoly sought to be protected. In support of its objection of want of novelty the defendant relied on prior publication and prior general knowledge. A number of instances of prior publication by means of letters patent were given by the defendant in its particulars, but at the hearing it relied on two only—one granted to Thomas

James Le Cras, No. 1031798, deposited in the public library, Perth, Western Australia, on 9th July 1912, and the other granted to the plaintiff, dated 8th October 1928. The nature of the patent granted to the plaintiff in 1928 sufficiently appears in the judgments hereunder. The defendant also relied on a number of instances of prior user and on publication by means of a registered design and in catalogues. In further particulars of objection it gave further instances and alleged that the actual inventor was not the plaintiff's managing director as claimed but was some other named person.

The complete specification of the plaintiff's patent, headed "Improvements in hospital beds," was as follows:—"This invention relates to hospital beds and its object is to provide improved means for the elevation of the bed at one end thereof, whereby the bed may be readily moved from one stationary position thereof to any other desired stationary position thereof, the stationary positions of the bedstead being effectuated by operating the said elevating means to lower the standards of the bedstead to floor level, assuming that the bedstead is to lie in a horizontal position in relation to said floor level. Referring to the accompanying drawings, Fig. 1 is a perspective view of the elevating and lowering means attached to a bedstead; Fig. 2 is a sectional detail elevation view; and Fig. 3 is a sectional plan on lines 3-3, Fig. 2. At one end of the bedstead 1, and positioned preferably medially of the two end vertical standards 2 and 3 thereof and affixed to the horizontal members 4 and 5 of the bed, is a vertically disposed member 6 into which is adapted to telescope an elevating post 7 which may be provided with oppositely disposed arms carrying castor wheels 8 or the like. Associated with the member 6 and fixed to the horizontal members 5 is a bracket 9 to which is pivotally connected a weighted pawl or bolt 10. Such pawl or bolt 10 is constructed to enable one end thereof to fit and pass through an opening 11 in the member 6; the said end of the bolt 10 after passing through the opening 11 is adapted to engage with a shrouded tooth rack 12 on one side of the elevating post 7. The member 6 and the post 7 are so constructed that when the post 7 is assembled in the member 6, the post 7 will be prevented from rotating in the member 6; such construction ensures that the tooth rack 12 and the pawl or bolt 10 will be kept in alignment. For such

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.

v.
NEWLANDS
BROTHERS
LTD.

H. C. OF A.

1937.

ACME
BEDSTEAD
CO. LTD.v.
NEWLANDS
BROTHERS
LTD.
—

purpose the member 6 may be of rectangular formation. The design of the teeth of the rack is such that when weight is placed on the post 7 and the telescopic member 6, the pawl or bolt 10 will become automatically lock-engaged with the rack 12. On the other hand, when the pawl or bolt 10 is manually released from engagement with any one of the teeth of the rack 12 the member 6 with the bedstead 1 may be lowered to desired position. In operation, to elevate the bed 1, the end thereof at which the castors 8 or the like are located is lifted to the desired height, the pawl or bolt 10 automatically riding over the teeth of the rack 12 and being adapted to engage with any desired tooth of the said rack. To lower the bed 1 it is only necessary to manually tilt the pawl or bolt 10 from engagement with any one of the teeth of the rack 12 when the member 6 will slide downwardly in relation to the post 7 and the bed 1 with its supporting standards 2 and 3 will consequently be lowered to floor position. Having now fully described and ascertained our said invention and the manner in which it is to be performed, we declare that what we claim is :—1. A hospital bed having at one end thereof means for elevating or lowering the supporting standards thereof at such end, such means comprising a hollow member affixed to said end of the bedstead between the said standards and having an opening therein, a telescopic post with teeth non-rotatably mounted in said member and having castor feet, and a bolt pivotally supported on said end of the bedstead and passing through the opening in said member and adapted to ride over said teeth and to become lock-engaged with one of said teeth when the said end of the bed is being elevated, the said bolt being also adapted to be manually tipped from engagement with any of the said teeth when the said end of the bed is to be lowered. 2. A hospital bed according to claim 1, in which the hollow member is of rectangular formation to enable the telescopic post to be slidably and non-rotatably mounted therein. 3. A hospital bed according to either of the preceding claims, in which the bolt is weighted and is pivotally secured to a bracket affixed to the end of the bedstead which is to be raised or lowered. 4. A hospital bed substantially as herein described with reference to the accompanying drawings.”

The drawings which accompanied the specification were as follows :—

H. C. OF A.
1937.
ACME
BEDSTEAD
CO. LTD.
v.
NEWLANDS
BROTHERS
LTD.

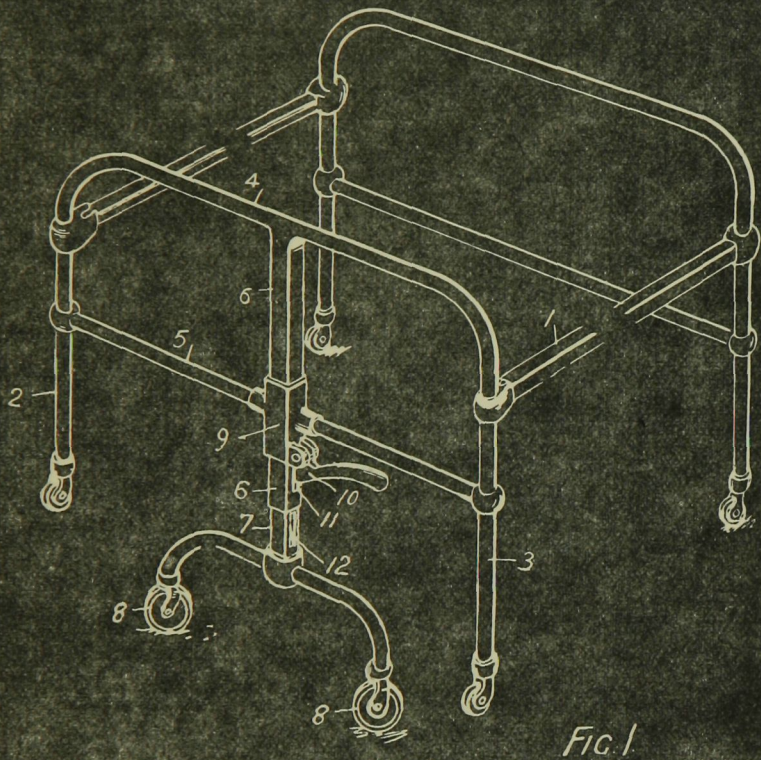


FIG. 1

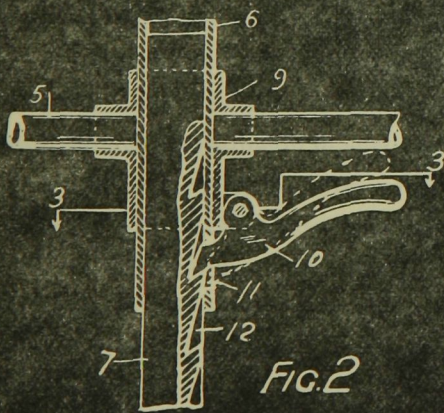


FIG. 2

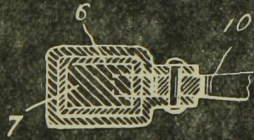


FIG. 3

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.
v.
NEWLANDS
BROTHERS
LTD.
—

The trial judge found that the defendant's bed infringed claims 1, 2 and 3 of the plaintiff's patent, and granted an injunction against the defendant.

The Full Court of the Supreme Court held that the claims in the plaintiff's specification were invalid, and allowed an appeal from the decision of the trial judge, set aside the decree, and dismissed the suit with costs: *Acme Bedstead Co. Ltd. v. Newlands Brothers Ltd.* (1).

From the decision of the Full Court the plaintiff appealed to the High Court.

Further material particulars appear in the judgments hereunder.

Dudley Williams K.C. (with him *Hardie*), for the appellant. The respondent's bed is completely within the scope of the appellant's claims and definitely infringes claims 1, 3 and 4. The difference in the shape of two telescopic members was non-essential. The proper construction to be placed on claim 4 depends upon what is contained in the body of the specification (*R. W. Crabtree & Sons Ltd. v. R. Hoe & Co. Ltd.* (2)). The evidence establishes that apart from the 1928 specification no bed containing the mechanical elements in the appellant's bed had ever previously been constructed. There is no indication in the 1928 specification of the idea of having a bed provided with mechanical means so that it could be raised and lowered by a single person, and no indication of how that end could be achieved. This was accomplished in the bed described in the 1929 specification, which was evolved only after many unsuccessful attempts to attain the desired objective, and although the solution may be regarded as simple it, at least, discloses a scintilla of invention (*Benton & Stone Ltd. v. Thomas Denston & Son* (3); *Manbré & Garton Ltd., and E. A. Berry v. Albion Sugar Co. Ltd.* (4); *Albert Wood and Amcolite Ltd. v. Gowshall Ltd.* (5)), and is beyond the skill of a skilled mechanic. It differs in many important features from the various types of beds relied upon by the respondent as showing prior user and met a long-felt want. The time and trouble taken by an inventor in

(1) (1937) 37 S.R. (N.S.W.) 234; 54 W.N. (N.S.W.) 23.
(2) (1936) 53 R.P.C. 443, at pp. 450, 452.

(3) (1925) 42 R.P.C. 284, at pp. 297-299.
(4) (1936) 53 R.P.C. 281.
(5) (1936) 54 R.P.C. 37, at p. 39.

arriving at the desired result are matters to which importance should be attached (*Howaldt Ltd. v. Condrup Ltd.* (1)). The respondent's bed is a colourable imitation of the appellant's bed with merely a different principle of obtaining non-rotation. The respondent can only rely on the 1928 patent as a paper anticipation subject to the test laid down in *Pope Appliance Corporation v. Spanish River Pulp and Paper Mills Ltd.* (2). The two questions of a patent being held to be invalid for want of novelty, and a patent being held to be invalid by reason of common knowledge at the date of the patent, should be kept distinct from one another (*Terrell on Patents*, 8th ed. (1934), p. 65). The Full Court was in error in holding that a prior specification or a prior user which has not become part of general knowledge is an anticipation if the description or article in use solved the problem to a certain extent and the person seeking to solve the problem could supply the balance by the use of common knowledge. Paper anticipations are only material on the issue of want of novelty; on the issue of subject matter all that is material is the state of common knowledge in the art. The Full Court misread the judgment of *Farwell J.* in *Amalgamated Carburettors Ltd. v. Bowden Wire Ltd.* (3); that judgment does not throw any light upon this aspect of the case. "Anticipation" was dealt with in *Molins and Molins Machine Co. Ltd. v. Industrial Machine Co. Ltd.* (4). The law as to prior user is as stated in *Terrell on Patents*, 8th ed. (1934), p. 92; see also *Boyce v. Morris Motors Ltd.* (5). By that test the evidence in this case does not establish "prior user." The appellant's bed is a distinct step forward from the beds of which there was common knowledge at the time; therefore there was subject matter.

Bonney K.C. (with him *Thomas*), for the respondent. The 1929 bed does not disclose the inventive step which, as between a particular patent and preceding disclosures, is always essential. The evidence establishes that every integer was well known; that it was well known that there were many varieties of the essential integers in the case; that the practice was to modify and vary those integers

H. C. OF A.

1937.

ACME
BEDSTEAD
CO. LTD.v.
NEWLANDS
BROTHERS
LTD.
—(1) (1936) 54 R.P.C. 121, at pp. 126,
128-132.

(2) (1929) A.C. 269, at pp. 281, 282.

(3) (1930) 48 R.P.C. 105.

(4) (1936) 54 R.P.C. 94, at p. 115.

(5) (1926) 44 R.P.C. 105, at p. 135.

H. C. OF A.

1937.

ACME
BEDSTEAD
CO. LTD.v.
NEWLANDS
BROTHERS
LTD.
—

to suit the requirements of the particular case ; that the production of non-rotation was an elementary matter ; that varieties of ratchet and pawl were common and well known ; and that the pawl or bolt in the 1929 specification was merely a variation of the form which appeared in the 1928 specification. Having regard to the use of the 1928 specification and common knowledge, there was no invention disclosed in the 1929 specification. The 1928 bed, which was in use for some months, was substantially automatic, that is, subject to rotation. The only step necessary to convert it from substantially automatic to completely automatic was the obvious step of preventing rotation, keeping the two alignments in line. The defects in that bed were readily apparent and the discovery and cure thereof did not require any inventive step. In considering the effect of a prior specification which has been used regard must be had to (a) the document ; (b) the use ; and (c) common general knowledge (*Paper Sacks Pty. Ltd. v. Cowper* (1) ; *Pope Appliance Corporation v. Spanish River Pulp and Paper Mills Ltd.* (2) ; *Canadian General Electric Co. Ltd. v. Fada Radio Ltd.* (3) ; *British Hartford-Fairmont Syndicate Ltd. v. Jackson Bros. (Knottingley) Ltd.* (4) ; *Hills v. Evans* (5) ; *British Thomson-Houston Co. Ltd. v. Metropolitan-Vickers Electrical Co. Ltd.* (6) ; *Lektophone Corporation v. S. G. Brown Ltd.* (7)). The 1929 specification does not disclose any inventive step ; it is merely the application of well-understood pieces of mechanism in order to cure an obvious defect (*Read v. Stella Conduit Co.* (8) ; *Bloxham v. Kee-Less Clock Co.* (9) ; *Adelmann and Ham Boiler Corporation v. Llanrwst Foundry Co.* (10)). Those cases fully establish and justify the judgment of the Full Court. Here, there was no new combination ; there was a mere curing of a defect in an existing combination, by modifying two of the integers. The need for that modification was well known and obvious, and the means were also obvious. Assuming validity, however, the claims, upon their proper construction, are not infringed. The appellant's managing director is not a skilled mechanic, and the length of time taken by him, or for

(1) (1935) 53 R.P.C. 31, at p. 53.

(2) (1929) A.C. 269, at pp. 276, 277 ;
46 R.P.C. 23, at p. 53.

(3) (1929) 47 R.P.C. 69, at p. 90.

(4) (1932) 49 R.P.C. 495, at p. 551.

(5) (1862) 31 L.J. Ch. 457.

(6) (1927) 45 R.P.C. 1, at p. 22.

(7) (1929) 46 R.P.C. 203, at pp. 230,
233, 234.

(8) (1916) 33 R.P.C. 191, at p. 197.

(9) (1922) 39 R.P.C. 195.

(10) (1928) 45 R.P.C. 413, at p. 420.

that matter by any other person, to cure the defect, is no proof of invention. The evidence does not establish that the appellant's bed met a long-felt want, as was the case in *Howaldt Ltd. v. Condrup Ltd.* (1) and *Paper Sacks Pty. Ltd. v. Cowper* (2), nor does it establish that the bed had been an immediate commercial success. The "improvement" in the appellant's bed differs from the "improvement" considered in *Benton & Stone Ltd. v. Thomas Denston & Son* (3) in that the latter was an ingenious and clever device which suffered nothing from being comparatively simple. The suggestion that there is no difference between mere paper anticipation as anticipation and prior user as anticipation, as appears in *Boyce v. Morris Motors Ltd.* (4), is contrary to the view of the Privy Council as expressed in *Pope Appliance Corporation v. Spanish River Pulp and Paper Mills Ltd.* (5).

Dudley Williams K.C., in reply. There is nothing in the *Paper Sacks Case* (2) that limits the test as to anticipation laid down in the *Pope Appliance Corporation Case* (5); see also *Rheostatic Co. Ltd. v. Robert McLaren & Co. Ltd.* (6). There is no distinction between anticipation by prior publication and by prior user which has not become part of common knowledge. There is nothing to the contrary in the *Pope Appliance Corporation Case* (5). The statement as to prior user in *Boyce v. Morris Motors Ltd.* (7) is one of general application which has not been cut down by any decision of the court.

[*Bonney* K.C., by leave, referred to *Sharp & Dohme Inc. v. Boots Pure Drug Co. Ltd.* (8).]

Cur. adv. vult.

The following written judgments were delivered:—

LATHAM C.J. The plaintiff appellant succeeded before *Nicholas J.* in an action against the defendant respondent for infringement of letters patent No. 24143 of 1929. The Full Court of the Supreme Court of New South Wales upon appeal reversed the decision of the trial judge and dismissed the action on the ground of lack of subject matter in the alleged invention.

- (1) (1936) 54 R.P.C. 121.
- (2) (1935) 53 R.P.C. 31.
- (3) (1925) 42 R.P.C. 284.
- (4) (1926) 44 R.P.C. 105.

- (5) (1929) A.C. 269; 46 R.P.C. 23.
- (6) (1935) 53 R.P.C. 109, at p. 115.
- (7) (1926) 44 R.P.C., at p. 135.
- (8) (1928) 45 R.P.C. 153, at p. 178.

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.
v.
NEWLANDS
BROTHERS
LTD.
—

Nov. 24.

H. C. OF A.

1937.

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ACME

BEDSTEAD

CO. LTD.

v.

NEWLANDS

BROTHERS

LTD.

Latham C.J.

The letters patent related to improvements in hospital beds. The specification described a hospital bed which could be raised at one end and adjusted to varying heights so that a desired inclination could be given to the bed and the bed could be moved about on wheels or castors attached to an inverted "U" at the bottom of a central post or leg at the end of the bed. A bed constructed according to the specification would not tilt and could readily be moved about on its wheels. The central post was mounted telescopically within a sleeve which was integral with the bed. The sleeve had a slit in it through which a pawl could engage in a tooth rack upon the post. When the end of the bed was lifted the end of the pawl rode over the teeth, and the bed became stable when the end of the pawl fell by its own weight so as to engage in the teeth. In order to lower the elevated bed the weight of the bed was taken off the pawl by a slight lift, the pawl was manually disengaged from the teeth, and the bed was allowed to descend by gravity to the floor or to any desired height, the pawl re-engaging as required. During both lifting and lowering the bed was under easy control and a single person could adjust it.

Before the plaintiff's bed was designed, beds were known which had an additional central leg at one end by means of which the bed could be raised to a position with one end higher than the other for the purpose of moving the bed more easily upon wheels. The bed, when so raised, would be resting upon one leg only at the elevated end, and accordingly would be unstable, so that it could not be used in the raised position unless, as in the case of any other bed, blocks were placed under the other legs. Thus these beds did not achieve the same results as the plaintiff's bed. They, however, presented the feature of a telescopic additional leg held in an elevated position by a pawl, though, as the object was simply to make the bed easily movable, there was no provision for varying the height to which the bed could be raised. These beds had only one wheel or castor at the foot of the additional leg, but it is not claimed by the plaintiff that the addition of an inverted "U" with a wheel or castor at each foot involved inventive ingenuity.

The plaintiff took out a patent in 1928 for a bed and the specification of this patent is relied upon by the defendant as an anticipation

of the 1929 patent upon which the plaintiff sues. This bed could be adjusted to varying heights. The sliding member in the additional leg was round. There was one series of holes in this member and another series in the round sleeve within which it worked. A curved bolt was provided to enter the openings in the sleeve and the sliding member when openings were opposite to each other, thus holding the bed securely at the desired height. The sliding member, however, could turn round or rotate in its sleeve. Then the holes would not register and the bolt would not enter any hole in the member. Thus it was difficult for a single person to adjust the bed readily and a patient in the bed might be seriously jarred or jolted if, as was quite possible, the device did not work smoothly and immediately. The bed had an inverted "U" foot on the additional leg. Beds made in accordance with the 1928 specification were used in the Royal Women's Hospital before the date of the 1929 patent.

The plaintiff's 1929 invention substitutes a non-rotatable (e.g., rectangular) member moving in an appropriately shaped sleeve for a round member, and thus prevents any movement of the inner member which would interfere with the ready engagement of a bolt or pawl. In the plaintiff's bed also a ratchet and pawl are substituted for other devices for holding the end of the bed at the desired height.

The first claim in the plaintiff's patent is: "A hospital bed having at one end thereof means for elevating or lowering the supporting standards thereof at such end, such means comprising a hollow member affixed to said end of the bedstead between the said standards and having an opening therein, a single telescopic post with teeth non-rotatably mounted in said member and having castor feet, and a bolt pivotally supported on said end of the bedstead and passing through the opening in said member and adapted to ride over said teeth and to become lock-engaged with one of said teeth when the said end of the bed is being elevated, the said bolt being also adapted to be manually tipped from engagement with any of said teeth when the said end of the bed is to be lowered." Claims 2 and 3 incorporate claim 1 with additions, and claim 4 is for a hospital bed substantially as described in the specification with reference to the

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.

v.
NEWLANDS
BROTHERS
LTD.

Latham C.J.

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.
v.
NEWLANDS
BROTHERS
LTD.

Latham C.J.

accompanying drawings. The bed so described and referred to has a rectangular member within a rectangular sleeve.

The defendant relied (*inter alia*) upon the defence that the alleged invention was not proper subject matter for the grant of a patent "having regard to general common knowledge in the art in which the said alleged invention belongs."

The evidence shows that the plaintiff's bed possessed new features as compared with all known previous beds. The ratchet and pawl device had not previously been actually incorporated in a bed nor had a rectangular or other non-rotatable telescopic member been used in a bed for the purpose for which it was used in the plaintiff's bed. It is not disputed that a ratchet and pawl is an old device for procuring freedom of movement in one direction and arrest of movement in the opposite direction. A common form of lifting jack and many other mechanical devices embody this feature. The other distinctive feature, the non-rotatable member, whether in rectangular or other form, is shown by the evidence to be a device which would readily suggest itself to the mind of a competent workman if he was asked to prevent a telescopic member from rotating within another member.

The evidence also shows that hospital authorities had desired to obtain a bed with the features of the plaintiff's bed, namely, possibility of elevation of one end to a desired height, and safety and mobility of such a bed. The plaintiff's bed is plainly a good and effective article. But it is necessary for the plaintiff to show that an inventive step was involved in designing the bed. He has combined together well-known mechanical integers and has used each of them for its natural and well-known purpose. I agree with the Full Court that there is no inventive ingenuity in using a rectangular or other non-rotatable leg instead of a round leg or in using a ratchet and pawl for a purpose for which a ratchet and pawl has always been used. The plaintiff has simply applied well-known things to an article to which they had not formerly been applied.

It is contended, however, that there is no justification for, to put it shortly, adding common knowledge to an alleged paper anticipation and thus depriving a patent of subject matter. It is urged that the authorities show that a paper anticipation must show, and

precisely show, the whole of the claimed invention in order to be an anticipation at all, and that, if an alleged anticipation does not satisfy this requirement, it should be ignored (See *Pope Appliance Corporation v. Spanish River Pulp and Paper Mills Ltd.* (1)). But a given specification is not to be read as in a vacuum. The reader must be regarded as having at least the common knowledge of the art. If a competent workman, seeing either a given specification or an article in actual use, could, upon a defect being pointed out, devise, without the exercise of any inventive ingenuity, a means of overcoming the defect, there would not be invention in the result which he so achieved. This proposition is supported by the following authorities :—*Bloxham v. Kee-Less Clock Co.* (2) : “ The first so-called invention is, in my judgment, merely a correction of an obvious defect in the machine described in the first specification and cannot, therefore, be properly considered an invention at all ” ; *Adelmann and Ham Boiler Corporation v. Llanrwst Foundry Co.* (3) : “ The alleged invention, though possessing the advantages of being an excellent design, is simply the application of a well known and well understood piece of mechanism to achieve an obvious advantage, and is not the proper subject of letters patent ” ; *Amalgamated Carburettors Ltd. v. Bowden Wire Ltd.* (4) : “ There is sufficiently disclosed in this specification a solution of the problem, and none the less sufficiently disclosed because the device shown in the drawing to which the specification refers requires such modification or alteration as can be done by a trained mechanic. If this is so, it is unnecessary to consider whether the effect of that is that this specification defeats the plaintiffs’ claim, on the ground that it is a complete anticipation of their invention, or on the ground that there is no subject matter ” ; *Paper Sacks Pty. Ltd. v. Cowper* (5), where it was held that there was no subject matter in an improvement to an invention disclosed in a prior specification if the making of the improvement was an obvious course to adopt for the attainment of the desired objective.

Thus, in my opinion, there is no subject matter for a grant of letters patent in what is described in claim 1. Claim 2 is for a

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.

v.
NEWLANDS
BROTHERS
LTD.

Latham C.J.

(1) (1929) A.C., at p. 276 ; 46 R.P.C.,
at p. 53.

(2) (1922) 39 R.P.C., at p. 208.

(3) (1928) 45 R.P.C., at p. 420.

(4) (1930) 48 R.P.C. 105, at p. 121.

(5) (1935) 53 R.P.C., at pp. 53, 54.

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.
v.
NEWLANDS
BROTHERS
LTD.

Latham C.J.

hospital bed according to claim 1 in which the hollow member is of rectangular formation. Claim 3 is for "a hospital bed according to either of the preceding claims, in which the bolt is weighted and is pivotally secured to a bracket affixed to the end of the bedstead which is to be raised or lowered." Claim 4 is for "a hospital bed substantially as herein described with reference to the accompanying drawings." These claims are, in my opinion, also invalid for the reasons which I have stated in relation to claim 1.

The judgment of the Full Court should be affirmed.

STARKE J. This is an appeal from a judgment of the Supreme Court of New South Wales reversing the decision of the trial judge and dismissing a suit alleging the infringement of letters patent No. 24143 of 1929 on the ground that the invention, the subject matter of the letters patent, was wanting in subject matter. The letters patent were in respect of improvements in hospital beds.

Claim 1 is for "a hospital bed having at one end thereof means for elevating or lowering the supporting standards thereof at such end, such means comprising a hollow member affixed to the said end of the bedstead between the said standards and having an opening therein, a telescopic post with teeth non-rotatably mounted in said member and having castor feet, and a bolt pivotally supported on said end of the bedstead and passing through the opening in said member and adapted to ride over said teeth and to become lock-engaged with one of said teeth when the said end of the bed is being elevated, the said bolt being also adapted to be manually tipped from engagement with any of said teeth when the said end of the bed is to be lowered."

Admittedly all the elements in the claim were old, and the only question is whether the aggregation or combination of them involved the exercise of inventive genius or only a mechanical adaptation.

In 1928 the appellant, the Acme Bedstead Co. Ltd., had obtained letters patent for improvements in hospital beds. It was for a hospital bed having elevating means attached to the end thereof between the legs of the bed, such elevating means comprising a tube with a series of openings therein, a member adapted to telescope with the said tube and having a series of openings therein and a foot,

a bracket slidable on the tube and a manually operable lever pivoted to the said bracket and carrying a curved bolt adapted to enter the said openings in the tube and telescopic member when oppositely disposed openings in the tube and telescopic member are brought in to register with each other.

The appellant in the 1929 patent substituted, for the openings in the tubes and a manually operable lever pivoted to the bracket and carrying a curved bolt adapted to enter the openings, a weighted pawl or bolt adapted to engage a tooth rack or, in other words, a ratchet and pawl device. Ratchet and pawl devices are very old mechanical contrivances and their purpose is to enable movement to take place in one direction and to arrest movement in the other direction between two members. All this was well known and perfectly understood, yet this is all that the appellant substituted for his 1928 device of openings in the tubes and a lever with a curved bolt. The evidence of the engineers Reynolds and Wilkins is, I think, really decisive. It shows that the ratchet and pawl device was in common use and in a great variety of forms. The device was so well known and its functions so well understood that any trained mechanic if he desired or was directed to modify or alter the openings in the tube and lever with a curved bolt by the substitution of a ratchet and pawl device would have known how to make the necessary alterations, using only the skill and knowledge acquired in his art. The substitution would not involve the exercise of any inventive faculty but only mechanical skill in adapting an old contrivance to an analogous use. But this is insufficient to sustain the 1929 patent as a new invention. It is wanting in subject matter. Claims 2, 3 and 4 are also wanting in subject matter and for the like reasons. And in addition claim 2, if it were valid, is not infringed, for it is restricted to a hollow member of rectangular formation which the respondent does not use.

But I must refer to an argument which was much stressed on behalf of the appellant. It is forcibly stated in the case of the *British Ore Concentration Syndicate Ltd. v. Minerals Separation Ltd.* (1):—"It cannot be too carefully kept in mind in patent law that, in order to render a document a prior publication of an invention, it

H. C. OF A.

1937.

ACME
BEDSTEAD
CO. LTD.

v.

NEWLANDS
BROTHERS
LTD.

Starke J.

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.
v.
NEWLANDS
BROTHERS
LTD.

Starke J.

must be shown that it publishes to the world the whole invention, i.e., all that is material to instruct the public how to put the invention in practice. It is not enough that there should be suggestions which, taken with suggestions derived from other and independent documents, may be shown to foreshadow the invention or important steps in it. Since the date of the vigorous protest of *James L.J. (Von Heyden v. Neustadt)* (1) against such a 'mosaic' of prior publications this has been a universally accepted and most salutary principle."

To establish prior publication it is not necessary, however, to prove common knowledge: public knowledge is sufficient whether the invention be known to many or few.

In *Savage v. D. B. Harris & Sons* (2) *Lindley L.J.* said: "It is admitted that his specification was published in this country and was matter of public knowledge and public property, although very likely not of common knowledge, the difference between the two being obvious." "While it is in general not legitimate to assume that the craftsman would carry all the various matters of public knowledge in his mind simultaneously, and it is therefore not proper to combine items from different publications so as to destroy the subject matter of a later patent, matters of common general knowledge are assumed to be always present to his mind, and therefore such matters may be combined with other matters of public knowledge. Thus a reader of any publication may be assumed to interpret or even extend it in view of the common general knowledge of the trade" (*Fletcher Moulton on Patents*, 1st ed. (1913), p. 57; *Paper Sacks Pty. Ltd. v. Cowper* (3); *Amalgamated Carburettors Ltd. v. Bowden Wire Ltd.* (4)).

It is legitimate, therefore, to consider the appellant's specification of 1928 with the common general knowledge of the time. Taken together in the present case no room is left for the exercise of any inventive faculty in the manner claimed by the appellant.

The appeal should be dismissed.

DIXON J. The patent which the appellant seeks to uphold concerns no unfamiliar art or branch of knowledge and has no deep purpose. Its object is to allow the foot of a bed to be raised and

(1) (1880) 14 Ch. D. 230; 50 L.J. Ch. 126.

(2) (1896) 13 R.P.C. 364, at p. 367.

(3) (1935) 53 R.P.C., at p. 53.

(4) (1930) 48 R.P.C., at pp. 120, 121.

to make it easier to move the bed about. The means by which it is done does not seem complicated. The end of the bed is furnished with two additional castor feet, close together, branching from a middle post that slides up and down. The middle post is not round but rectangular in section, or at any rate angular, and slides in a hollow upright of the same shape. At one side or edge it has a ratchet into the teeth of which a pawl enters through a slit in the hollow upright. When the end of the bed is lifted, the middle post slides in the hollow upright and the pawl rides over the teeth of the ratchet. When the required height is reached, under the weight of the bed the pawl is caught in a tooth of the ratchet, with which it meshes, and the bed is supported at that end by the post and its two castor feet. The angularity of the post and the hollow upright within which it slides prevents the post turning and so keeps the ratchet facing the pawl. It is unnecessary to say that the operation of the pawl and ratchet is of a commonplace nature and could be seen in very many appliances, as, for instance, in an ordinary lifting jack or in the catch of a railway carriage window. Of the various means practised for preventing a rod from revolving in a hollow pipe or channel into which it telescopes, perhaps the commonest is to give them a rectangular, polygonal or elliptical section.

The question for consideration is whether the device for raising the foot of the bed amounts to an invention forming subject matter for a patent.

In the actual specification the claims are four in number. The substantial effect of the first of them is to claim a form of construction for the end of a hospital bed as a means of raising and lowering the foot of the bed. The features claimed are the hollow upright between the ordinary bed posts, and a post bearing castor feet which is to telescope into the upright and is so mounted as not to revolve but always to present a ratchet edge or side to a pawl sliding over the teeth, as the bed is raised, and manually released, when the bed is to be lowered. This claim covers all methods of preventing the rod from turning in the hollow upright.

In the second claim, the method is limited to making the post and tube rectangular.

H. C. OF A.
1937.

ACME
BEDSTEAD,
CO. LTD.

v.
NEWLANDS
BROTHERS
LTD.

—
Dixon J.

H. C. OF A.

1937.

ACME
BEDSTEAD
CO. LTD.

v.

NEWLANDS
BROTHERS
LTD.

Dixon J.

The third claim expressly introduces another feature by way of limitation, but a feature that is almost implied in the first claim, namely, that the pawl, or bolt as it is called in the claim, should be weighted and secured by a pivot to a bracket affixed to the end of the bed.

The fourth claim is for the bed substantially as described in the specifications and drawings.

If the contrivance embodied in the bed end possesses the necessary quality of invention, at least it does not carry it upon its face. No evidence is needed to show that very familiar and very old expedients are employed. They are not applied to any new purpose, except in so far as raising and lowering a bed by mechanical means may be considered a new purpose. The telescoping post, the hollow upright and the ratchet and pawl cannot be regarded as a combination of features or elements. They constitute one element, a commonplace mechanical contrivance for the performance of the very purpose to which it is applied. To form the opinion that a mechanical means of lifting the foot of a hospital bed is desirable, to choose as the means a single telescoping post with a ratchet and pawl, to place it midway between the two end bed posts and to furnish it with two castor feet close together may amount to invention, but unless these things do, it is not obvious what other considerations there can be which will support the patent.

As is usual, however, the defendants in the suit were not content to depend on public general knowledge. They cited some prior publications as paper anticipations and of these they continue to rely upon two. One of these consists in standards containing slots into which an automatically turning pawl fitted. But it differs from the appellant's design in several respects. The standards are two in number; they are detachable and do not form part of the bed; and the pawl is not manually released by a lever but is turned over by lifting the bed to a higher slot. The other is a prior patent obtained by the appellants themselves. It is for an invention from which that now in question differs only in the use of a ratchet and of a quadrangular section in the hollow upright. The appellant's former invention made no provision for preventing the post with

the castor feet from revolving and, instead of a ratchet, the telescoping post was pierced at intervals with holes which it was necessary to bring opposite a hole in the hollow upright in order to peg it by means of a curved bolt attached to the bed by a pivot and worked by hand. The contrivance shown in this specification was the subject also of an instance or instances of prior public user. I should not think that either of these two devices were anticipations invalidating the appellant's invention, if otherwise it were novel and possessed subject matter. As paper publications neither appears to me to furnish the information of which the appellant's device is a substantial embodiment. The part of the actual construction and use of beds containing the appellant's prior invention, falling short as it did of making a contribution to common public knowledge, carries the matter very little further. It is said that to substitute a rectangular hollow upright and post for the tube and for the post liable to revolve and a ratchet and pawl for the holes and bolt was to take an obvious step to overcome an obvious defect.

No doubt, in considering anticipation and subject matter, a difference between an earlier invention and a later claim to a similar invention has sometimes been held insufficient to support a patent for the later because it involved no step calling for research, discovery, or any use of the inventive faculty. But, in such cases, the substantial invention constituting the contribution to public knowledge made by the earlier invention is reproduced in the later specification with insubstantial variations. A difficulty exists in reconciling some applications that have been made of this principle with the well-settled rule that a prior paper publication, giving information that does not become part of common knowledge, does not invalidate a subsequent patent unless it supplies enough information to enable a person of proper skill in the art to produce the mechanical device or appliance or carry out the process claimed in the later specification. In some cases the approach to the question of subject matter appears to have been, first, to take the information disclosed in a prior document cited as an anticipation and then to consider what advance was contained in the invention the subject of the subsequent patent and to determine whether that advance involved subject matter. In other cases, in which greater insistence on the settled

H. C. OF A.

1937.

ACME
BEDSTEAD
CO. LTD.v.
NEWLANDS
BROTHERS
LTD.

Dixon J.

H. C. OF A.
1937.
ACME
BEDSTEAD
CO. LTD.
v.
NEWLANDS
BROTHERS
LTD.
Dixon J.

rule is to be found, the approach is quite different. In these the existence of novelty and patentable subject matter has been considered in the light of public general knowledge only and then, when it has been found that, unless anticipated by prior publication, a meritorious invention has been made, the documents cited have been scrutinized to see whether they would present the intelligent and informed reader with that invention. When both alleged inventions relate to a special or new art or branch of knowledge the progressive development of which can be plainly followed, the two ways of looking at the question of subject matter will seldom make much difference in the result. For, in such cases, the earlier publication will, as a rule, disclose some definite discovery or advance and, if this forms the central feature of the later specification, it matters little whether the variations are examined as affording possible subject matter, or the two specifications are compared with a view of ascertaining whether the earlier gives all the information, which, apart from colourable or unsubstantial distinctions or differences depending on obvious or well-known equivalents, was needed for the purpose of constructing the device or appliance or carrying out the process forming the subject of the later.

In such a case as the present, however, there may be more danger of error. For it is a case in which the alleged anticipations and the specification in question are all directed to supplying by the selection from a great variety of very familiar expedients the most suitable means for fulfilling a requirement or performing a function. The very lack of complete success in the means adopted in the earlier examples may lead one mind to find in the improvement made in the later an ingenuity or inventive act which, perhaps, would not have been found if the later device had been first considered independently in the light of the very common knowledge from which the methods employed have been drawn, all perhaps with simplicity and directness of application. Another mind might, by fastening on one step only, that differentiating the later from the earlier contrivance, overlook a faint but sufficient inventive step in correlating a number of old means to form a device of some novelty and value, independently conceived and not really anticipated. To my mind the truth of the present case is that once mechanical means of raising

and lowering a hospital bed were asked for, the task of supplying them became one of selecting the most convenient and satisfactory out of a host of mechanical expedients all lying ready to hand. The actual inventor has narrated how matrons of hospitals asked him for such a bed and how he set to work to devise it. He has stated and illustrated expedients which he adopted or with which he experimented. The whole process through which he went affords, to my mind, confirmation of the view that he was not employed in invention but in supplying out of an embarrassing number of choices open to him that which in its practical application would prove most useful and commercially successful. The case falls, I think, within the language used by *Maugham J.*, as he then was, in *Adelmann and Ham Boiler Corporation v. Llanrwst Foundry Co.* (1): "The alleged invention, though possessing the advantages of being an excellent design, is simply the application of a well-known and well-understood piece of mechanism to achieve an obvious advantage, and is not the proper subject of letters patent."

In my opinion the appeal should be dismissed with costs.

Appeal dismissed.

Solicitors for the appellant, *Harold T. Morgan & Sons.*

Solicitor for the respondent, *T. J. Purcell.*

J. B.

(1) (1928) 45 R.P.C., at p. 420.

H. C. OF A.
1937.

ACME
BEDSTEAD
CO. LTD.

v.
NEWLANDS
BROTHERS
LTD.

Dixon J.