No. 24 of 1945 (9)

IN THE HIGH COURT OF AUSTRALIA.

MacGREGOR

V.

THE COMMISSIONER OF PATENTS

ORIGINAL

REASONS FOR JUDGMENT.

Delivered at SYDNEY

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MacGREGOR

v.

THE COMMISSIONER OF PATENTS

ORDER.

Appeal allowed. Direct that application and specification be accepted. Appellant to pay costs of Commissioner.

MacGREGOR

v.

THE COMMISSIONER OF PATENTS

REASONS FOR JUDGMENT. LATHAM C.J.

MacGREGOR

v.

THE COMMISSIONER OF PATENTS.

REASONS FOR JUDGMENT. LATHAM C.J.

This is an appeal from a decision of the Commissioner of Patents refusing to accept an application and specification for a patent for a sectional tubular steel pole or mast. The Patents Act 1903-1935, secs. 39 et seq., require the reference of applications and specifications to an examiner for report. In this case the examiner, after various amendments had been made in the specification, reported adversely to the application. The Commissioner refused the application on the ground of want of subject matter - which is a "lawful ground of objection", see sec.46.

The appeal comes to this court under sec. 47 of the Patents Act. Though described as an appeal, the proceeding is a matter in the original jurisdiction of the court. The Commissioner is not a court from which an appeal lies to the High Court under sec. 73 of the Constitution. The matter comes before the High Court by virtue of sec. 72, which provides that "The Parliament may make laws conferring original jurisdiction on the High Court in any matter - (ii) Arising under any laws made by the Parliament." The court in the present case has therefore admitted evidence of facts which were not before the Commissioner.

If the decision of the Commissioner is upheld, the application cannot proceed, and the applicant cannot obtain a patent for the invention claimed. A decision against the applicant, therefore, finally disposes of the right which he claims. If a decision is given in his favour the grant of a patent may still be opposed by any person, and the validity of the patent (if granted) may be challenged in proceedings for infringement or for revocation. In McDonald v. The Commissioner of Patents, 15 C.L.R., 713, it was held that, where the invention had not already been patented or been the subject of a prior application, the Commissioner should

not /

not refuse to accept the application and specification unless it was clear and obvious that it could not be granted. The case, as Mr. Justice Isaacs said (p. 719) must be so clear that the application could be said to be "so plainly wanting in merit, or subject matter, or so manifestly an infringement of some other patent, or so obviously an attempt to monopolize something already a matter of common knowledge, that the public ought not to be troubled to oppose it." It is upon this basis that I consider the present appeal.

The complete specification describes a tubular steel pole such as a telegraph pole, consisting of sections diminishing in diameter from lower to higher sections. The lower open end of a higher section is fitted over the upper end of a lower section, and is held in its place by its weight and the friction of the opposing surfaces without any bolts, rivets or the like. The cross-section of each part of the pole can be described either as an ellipse with flattened sides, or as a rectangle with rounded ends. It is claimed that this construction is much stronger than would be provided by sections with a circular cross-section; that it secures rigidity of the pole along the long axis of the ellipse, while permitting some desirable flexibility in the line of the short axis. The flat sides of the pole are claimed to be more simple and effective than the rounded sides of a circular pole for attaching cross-arms to the pole to carry wires.

The specification describes apertures cut in the metal of each section which are convenient for ventilation and inspection and for preventing or limiting internal corrosion by permitting atmospheric circulation which will dry the interior surfaces of the pole. Such apertures in the lowest section enable the earth in which the pole is set to be rammed both inside and outside the pole so as to form a key which holds the pole firmly in position.

The first claim is for a tubular steel pole comprising several tapering sections fitted together with the wide end of an upper section over the narrower end of a lower section, each section

having /

the joints being non-rigid.
having a cross-section of the shape described. Other claims add the apertures already mentioned and refer to the keying of the earth at the base of the pole. There is a claim for cross-arms of the same cross-section to be fitted to the pole. The pole is also claimed substantially as described and as illustrated in certain drawings and the separate pole sections of the shapes stated are also separately claimed.

Statements placed before the Commissioner show that the applicant's pole has had a very striking commercial success. It is stated that since August 1943, when the inventor's experimental trials were completed, the demand for the pole has grown from a trial order to 168,571 poles for defence and other services; that 87,764 poles and masts, representing 394,934 sections, had already been supplied, and that production, which was at the rate of 2,500 poles, or 12,500 sections, per week, was being increased to approximately double that figure.

The Commissioner decided that the application was for a design or construction which was not an invention within the meaning of sec. 4 of the Patents Act, with the result that he was satisfied that a lawful ground of objection existed within the meaning of sec. 46 of the Act.

The Commissioner had before him an English patent specification No. 213,953, dated 4th January 1923, relating to a pole of circular cross-section. No reliance was placed upon this specification in argument before us. There was also, however, an Australian specification No. 19,175 of a patent which was granted to Josef Pfistershammer on a convention application dated 5th September 1934. The specification and drawings show a tubular pole consisting of separate tapering sections of elliptical or oval cross-section fitted over one another, but held together at the joints of the sections by soft material which would harden so as to form a very rigid tight joint which is described as "a very solid interconnection of the elements". It is pointed out on behalf of the appellant that this specification does not disclose the

construction /

construction with flattened sides, and that it insists upon a joint completely rigid in all directions.

The Commissioner also had before him descriptions and drawings in text books of aeroplane struts or girders with flattened sides, and illustrations of apertures made in metal elements which remove unnecessary metal without interfering with the strength of the element.

Upon this material the Commissioner reached an opinion which he expressed in the following words:-

> "Structural designers are employed to specify shapes of various structural members to meet particular requirements; and the constructional departure of the present case from the prior art consists, according to my interpretation, in the flattening of the curve of the ellipse parallel to the major axis to produce a curve which differs from the ellipse in that it has two flat side faces. This, in my opinion, constitutes a slight structural modification and falls within the nature of design which would be expected from a competent structural designer."

In this court the Commissioner produced further material consisting of an English specification of a patent No. 263,116 granted to Sulzer Frères Société Anonyme applied for on 26th November 1926. It was open to public inspection at the Public Library, Victoria, from 12th December 1927. The Commissioner also produced a catalogue containing illustrations of poles manufactured by this company. This was placed in the office of the Chief Electrical Engineer of the Victorian Railways in June 1930. The applicant did not argue that the catalogue did not become public knowledge. The diagrams accompanying the specification and the illustrations in the catalogue do not show sections fitted into one another, but they do show an ellipse with flattened sides as the cross-section of a tubular pole.

Thus the Pfistershammer specification does not disclose the flattened sides or the non-rigid joints or the appertures described in the applicant's specification. The Sulzer specification and the catalogue disclose only the cross-section with flattened sides in a tubular pole. None of these documents

constitute a publication of the applicant's alleged invention.

There is not a great deal of evidence as to common knowledge. The text books produced show that metal members of structures with a flattened elliptical cross-section were known to engineers generally, that the removal of unnecessary metal from such members (leaving apertures) was commonly known as a form of structural design, and it is obvious that a pole can be constructed of tubular lengths inserted into each other.

Possibly a full enquiry would show that each one of the characteristics of the applicant's invention can be found somewhere else, either in a published document or as part of common knowledge. But they had never all been put together before the applicant thought out and constructed his pole. The mere addition to one another of known things each performing a known function and not co-operating to produce any new or better result cannot be claimed as a true invention by way of combination: British United Shoe Machinery Co. Ltd. v. Fussell & Sons Ltd., 25 R.P.C., 631, at p. 657. But it is contended on behalf of the applicant in this case that there is a sufficient degree of co-operation and interdependence between the elements which are put together to constitute a true combination - that the flattened sides add to the strength of the pole, that the added strength makes it possible to have the apertures for inspection and ventilation and improvement of ground support, that the flattened sides produce rigidity in the direction of strain caused by wires carried by cross-arms while allowing

flexibility /

flexibility across the line of the wires, and that such sides also render possible the convenient attachment of the cross arms. In my opinion this contention is not so obviously unsound that it should be rejected at the present stage on the ground that the applicant's pole constitutes only a slight structural modification which any competent designer could produce. In taking this view I am influenced to some extent by the great commercial success of the pole, although I fully appreciate the fact that commercial success may be explained by business enterprise, manufacturing skill or good fortune, rather than by an exercise of the inventive faculty. Such success is not in itself evidence of invention, but it is regarded as of importance in an action for infringement where the validity of a patent is challenged: Non-Drip Measure Co. Ltd. v. Strangers Ltd., 60 R.P.C., 135, at pp. 142-3. At the earlier stage of application for a patent the success of the invention claimed is at least as material a consideration as in an action for infringement. When all the elements mentioned in the applicant's claim were put together for the first time the merit of the new pole was, it would appear, recognised in a very striking manner.

It may be that full evidence will show that there is not sufficient invention to support a patent, but in my opinion the application should not be stopped at this stage. I am therefore of opinion that the appeal should be allowed and that the court should direct that the application and specification be accepted.

MacGREGOR

v.

THE COMMISSIONER OF PATENTS

JUDGMENT. WILLIAMS.J.

Mac GREGOR

v.

THE COMMISSIONER OF PATENTS.

JUDGMENT WILLIAMS.J.

The Chief Justice has already stated the nature of the proceedings, the facts, and the principles which should be applied in deciding whether an application for a patent should be accepted. I shall content myself therefore with stating my reasons very briefly for agreeing that the appeal should be allowed.

The two objections raised against the acceptance of the application are want of novelty and want of subject matter. Want of novelty occurs where the alleged invention has been disclosed by its publication in a prior document or by prior user. The invention in the present case, if invention there be, must consist, it seems to me, mainly in the appreciation of the increased efficiency given to a pole built in a number of sections by fitting the lower end of one section over the upper end of the section underneath and thereby providing a flexible joint instead of the rigid joint then in use, and by perceiving that tubular sections having an elongated cross sectional shape consisting of semi-circular ends connected by two flat and parallel side faces could be joined together in this way. Other minor improvements on existing poles are also claimed, the principal one being the making of apertures in the flat side faces of the sections to permit ventilation and inspection and, in the case of the bottom section, to assist ground anchorage, but these additions would appear to be simple mechanical improvements insufficient in themselves to constitute invention. The success of the application must depend therefore on the validity of the first claim.

There is no evidence of any prior user or of any disclosure in a prior publication of a pole constructed in the manner described in this claim. The Sulzer Frères Société Anonyme specification and catalogue and the Pfistershammer specification each deal with the problem of constructing tubular poles, but the Sulzer disclosures are the more important because the shape of the sections, particularly as shown in the catalogue, is the same as that described in the applicant's specification. The Pfistershammer specification discloses elliptical or oval cross sections. But these publications describe a rigid joint between the ends of the sections. They do not contain any suggestion that these ends could be joined by the simple process of fitting the one over the other. In order to be a prior publication, it is not sufficient that the apparatus described or illustrated in the earlier specification could be made to produce the desired result. The specification must contain clear directions to that effect. The documents in the present case do not contain any such directions. On the contrary, while they deal with the same problem, they solve it in a different manner.

The next question is whether the alleged invention is wanting in subject matter, that is to say whether it would be obvious to any skilled workman, and so would not involve any inventive step having regard to what was commonly known and used prior to the date of the application. This is in the main a question of fact. There is at present, as one would expect, a paucity of evidence of the state of common knowledge in the art at the date of the application. Assuming that the text books in evidence are part of such common knowledge, they disclose that the method of hollow metal construction having curved ends connected by parallel flat side faces, and the cutting of apertures in these faces, was well known. There is however nothing to suggest that

it was generally or even known at all that it would be an advantage to give sections of a pole so constructed a flexible joint, or that this could be done by the simple method of fitting the bottom end of one section over the upper end of the section below. This method was therefore new to the trade, and the evidence is not sufficient to enable the Court finally to decide whether this step forward was a simple mechanical improvement which would have occurred to any skilled workman or lay sufficiently outside the track of ordinary development to require inventive ingenuity. On this question evidence would be available upon a petition for revocation or in an action for infringement which is not at present before the Court. There is however evidence that the applicant's pole proved an immediate commercial success. Such evidence could not avail to validate a claim obviously lacking in inventive ingenuity, but it is important evidence in a borderline case. If this commercial success was due to business acumen or special business advantage it would have little weight, but if it succeeded because, although the inventive step was slight, it nevertheless produced important practical results, such evidence would materially assist the applicant's case. It is not, in my opinion, clear at this stage of the proceedings that the applicant's invention lacks that scintilla of ingenuity which is required to constitute subject matter so that a refusal of the application and specification is not warranted and I would therefore allow the appeal.

MacGREGOR

v.

THE COMMISSIONER OF PATENTS

JUDGMENT STARKE J.

Appeal from a decision of the Deputy Commissioner of Patents refusing to accept a complete specification on the ground that it did not disclose any invention within the meaning of the Patents Act 1903-1935.

The invention claimed is sufficiently described in claims 1 and 2 of the Specification:-

"(1) A sectional or built-up tubular pole, post, mast or the like of the type referred to and comprising a plurality of tapering tubular sections which are built up one upon the other by fitting the wide lower end of one section over the narrow upper end of the preceding section, characterized in that the tubular sections have an elongated cross-sectional shape consisting of semi-circular or curved ends connected by two flat and parallel side faces, and the joints are not cemented or entirely rigid, this in conjunction with the cross-sectional shape of the sections allowing the pole to have limited flexibility or dampened movement at the joints in a direction across the minor axis.

(2) A sectional or built-up tubular pole, post, mast or the like of the type referred to and comprising a plurality of tapering tubular sections which are built up one upon the other by fitting the wide lower end of one section over the narrow upper end of the preceding section, characterized in that the tubular sections have an elongated

cross-sectional shape consisting of semi-circular or curved ends connected by two flat and parallel side faces and the joints are not cemented or entirely rigid, this in conjunction with the cross-sectional shape of the sections allowing the pole to have limited flexibility or dampened movement at the joints in a direction across the minor axis, and further characterized in that said flat side faces have apertures or openings formed in them for internal ventilation and inspection of the pole." The other claims are dependent upon these claims and do not require separate consideration.

In dubio the Commissioner and the Court accepts a complete specification and allows a patent to issue since the refusal of a patent is final whilst a contrary decision leaves it open to contest the validity of the patent in other proceedings. But the doubt should be real and substantial and not arbitrary or fanciful. The rule is not intended to relieve any tribunal of all responsibility and enable it to follow the line of least resistance.

In the present case it is conceded that tubular steel poles and masts comprising a plurality of tubular sections built up one upon the other by fitting the wide lower end of one section over the narrow upper end of the preceding section. The sections of these built up poles were circular or of oval or elliptical shape in cross section and the joints were made rigid. Now the improvements which the applicant claims in these built up or tubular poles are:-

(1) that the tubular sections have a cross sectional shape consisting of semi-circular or curved ends connected by two flat or parallel side faces.

(2) The joints are not cemented or entirely rigid.

(3) The flat side faces have apertures formed in them.

The advantages which accrue from this construction are according to the complete Specification:-

(1) The flat side faces prevent lateral bulging.

(2) The special cross section gives increased strength to weight ratio in comparison with the continuous curve section poles.

(3) The apertures give internal ventilation and inspection and in the ground section of the pole act to key the earth outside the section with the earth rammed back into the space forming the interior of the section thereby forming secure ground anchorage.

The claims are for a juxtaposition of parts but not for a combination of inter-acting parts to achieve the desired result (British United Shoe Machinery Company Ld. v. A. Fussell & Sons Ld. 25 R.P.C. 631, at p. 657). Ordinary skilled designing work or mere workshop improvements do not constitute invention (Safveans Aktie Bolag v. Ford Motor Company (England) Ld. 44 R.P.C. 49, at p. 61). And commercial success does not constitute invention though it may be a factor in determining whether subject matter exists. The improvements claimed in this case are mere variations in the shape and form of the pole. Making flat faces on the pole instead of circular or oval faces is a mere variation of shape well within ordinary designing work or workshop improvement and so is making joints flexible rather than rigid and placing apertures in the poles for ventilation and for anchoring them. There is nothing constituting invention in the construction or form of the pole or in the result.

But it is said that the two flat and parallel side

faces provide an increase in strength so that it is possible to make apertures in the poles without appreciably reducing the overall strength of the pole, the apertures being so positioned and shaped that the remaining metal of the section fundamentally resembles a lattice structure. Be it so, the structural modification is well within the capacity of an ordinary skilled designer and the stresses may be readily calculated according to well known engineering formulae.

In my judgment, the decision of the Deputy Commissioner was plainly right and this appeal should be dismissed.

M A C G R E G O R v COMMISSIONER OF PATENTS

JUDGMENT DIXON J.

I am unable to find in the complete specification any new step which might reasonably support the grant of a patent. The specification, as it emerged from the course of criticism and amendment which it underwent, is a well drawn document expounding the alleged invention as well as the applicant could desire, but all that it appears to me to disclose is the adoption of a particular cross-sectional shape in the tapering members of a tubular pole and the omission of cement or other means of securing entire rigidity where the top of a lower member or section of the pole fits into that above it. From these features various

advantages are claimed to ensue and some of them are claimed as part of the invention. The cross-section chosen is by no means recondite, two parallel sides flat, and the other two sides round. The omission of cement and the exclusion of entire rigidity where one tapering tube fits into the next is put forward as an essential part of the combination and as depending on the cross-sectional shape of the tubes, but it is noticeable that in the provisional specification it is only something that is preferred.

" The sections ", the provisional specification says, " are " preferably held together solely by the frictional or surface " engagement of their interfitting ends, but in some cases locking " pins or other auxiliary securing means may also be provided."

The consequential advantages which, according to some claims, are

included in the inventive combination,are,first, that you can make apertures in the flat sides of the tubular poles to ventilate and to inspect the interior; secondly,that the apertures can be so placed that the remaining metal on the flat sides resembles a lattice structure ; thirdly,that the apertures on the lowest member or tubular section which fits into the ground may be used for ramming the earth into the interior,so that there is a form of anchoring ; fourthly,that use at the top of the pole may be made of cross bars CONSTRUCTED on the same principles. Consequences which are put forward but perhaps are not incorporated as actual features of any claim are that the cross-sectional shape gives at the joints a flexibility to the pole in the direction in which the

flat sides run, that the flat sides prevent lateral bulging, that they are convenient for the attachment of cross pieces, and that the apertures reduce corrosion because the air circulates within the tube. All this amounts to, as I see it, is a claim that the adoption for a familiar type of tubular mast or standard of a well known cross-sectional shape will make it possible to do several things in connexion with the pole and will secure certain advantages, including the alleged limited flexibility at the joints. But they are not interacting parts of a combination. There are no integers co-operating to produce a new result or an old result in a new way. The aperture or hole is a separate feature from the joint. It all

comes back to the cross-sectional shape and the advantages it gives. The set of conceptions is of the simplest order, even assuming that the advantages exist as claimed. In some circumstances the choice out of a number of well known forms available of a configuration which gives advantages may involve invention, novelty and subject matter, as for instance when an integer in a machine is given a new shape. But, when a well known form of pole is concerned, the taking of an ordinary cross-section from the stock in trade of engineers is a thing which, to my mind, lies outside the range of patentability. I cannot see that anything is added by pointing out that the configuration allows apertures to be made, gives a particular interaction

at the joints,and presents a flat surface for attachments.

As I have said before,I think that there is no new inventive step disclosed in the specification. But,as often happens in questions of patentability,the search for anticipations has brought to light descriptions of poles which are akin to but not the same as the applicant's and so has promoted doubts whether, seeing that others have reached out in the same direction, a question requiring invention for its solution did not exist when the applicant proposed his particular version of pole. Doubts of this sort are a familiar consequence of a study of alleged anticipations. But a frequent explanation of the phenomenon which is their source is to be found in the consideration that in

all questions of design a manufacturer who attains, or hopes for, success strives for a monopoly.

The supposed anticipations in the present case are open to this explanation, but, in any case, I cannot see any inventive step in what the applicant claims.

Another extrinsic matter which must be weighed in forming a judgment upon a question of invention or no invention, is the commercial success of the article in which the inventive idea is said to be expressed. In the present case it appears that some ~~trix~~ trials of the applicant's pole were completed in August 1943, that it was adopted by the armed forces here, both Australian and American, and that between that date and November 1944 nearly 400,000

sections had been supplied to them and that their demand had then risen to 12,500 sections a week. I gather that they used about five sections for a pole.

No doubt this demand shows that, in this theatre of war, a pole made according to the applicant's design was found suitable to the needs of the Navy, Army and Air Force and satisfactory. It does not appear which of its qualities made it so, and, in any case, I cannot see how, in the circumstances of this case, it throws any light on the question we have to decide, namely, whether there is disclosed by the applicant's specification any colourable claim for an invention.

I agree in the decision of the Deputy Commissioner that the

application for a patent is for a design or construction which is not an invention and I would dismiss the appeal.