



UNITED STATES  
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**35 U.S.C. 112, Sixth Paragraph  
MPEP 2181 – 2186**

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# Topics

Topics to be covered:

- I. What is Means-plus (or Step-plus) -Function Language?
- II. What is required under 35 USC 112, sixth paragraph?
- III. What happens if the claim is found not to fall under 112, sixth paragraph?
- IV. Applicant's Response



# A means-plus-function limitation recites a function to be performed rather than definite structure or materials for performing that function.

The interpretation of this language is covered by 35 USC 112, sixth paragraph.

1. A camera comprising:

**means for forming an image,**

*means + function*

**means for zooming the image, and**

*means + function*

**means for storing the image.**

*means + function*



# 35 U.S.C. 112, 6<sup>th</sup> Paragraph

**“An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”**



# How does interpretation of claim language under 35 USC 112, 6th paragraph differ from interpretation of claim language that does not invoke 112, 6<sup>th</sup>?

During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.”

The Federal Circuit’s en banc decision in *Phillips v. AWH Corp.*, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the “broadest reasonable interpretation” standard.

This means that words of a claim must be given their “plain meaning” unless such meaning is inconsistent with the specification.

In addition, while an understanding of the claim language may be aided by explanations contained in the written description, **it is important not to import into a claim limitations that are not part of the claim.**

MPEP 2111.01



# Interpretation of Claims under 35 USC 112, sixth paragraph

However, for claim limitations invoking 35 USC 112, sixth paragraph, are construed as covering the corresponding structure, material, or acts described in the specification and equivalents thereof.

See *In re Donaldson*, 29 USPQ2d 1845 (Fed. Cir. 1994) .



# MPEP 2181 Identifies A Three Prong Test To Be Applied

An examiner will treat a claim limitation as invoking 35 U.S.C. 112, sixth paragraph, **ONLY** if it meets the following 3-prong test:

- (A) the claim limitations **MUST USE** the phrase “means for ” or “step for; ”
- (B) the “means for ” or “step for ” must be modified by functional language; and
- (C) the phrase “means for ” or “step for ” must not be modified by sufficient structure, material, or acts for achieving the specified function.



# The claim limitations **MUST USE** the phrase “means for ” or “step for”

The absence of the term “means for” or “step for” raises the rebuttable presumption that claim limitations are not in means-plus-function form and thus are not to be interpreted according to 35 USC 112, sixth paragraph.



# Rebutting the Presumption

In order to rebut the presumption that the claim limitations were not intended to be treated as means-plus-function, Applicant must either:

- (A) “amend the claim to include the phrase ‘means for’ or ‘step for’ in accordance with these guidelines; or
- (B) show that even though the phrase ‘means for’ or ‘step for’ is not used, the claim limitation is written as a function to be performed and does not recite sufficient structure, material, or acts which would preclude application of 35 U.S.C. 112, sixth paragraph.”

See MPEP 2181, subsection I



# Let's revisit the camera example:

How would the claim limitations be interpreted under 35 USC 112, sixth paragraph in light of *In re Donaldson*?

A camera comprising:

means for forming an image,

means for zooming the image, and

means for storing the image.



# Apply The Three Prong Test

- (A) The claim limitations must use the phrase “means for ” or “step for”;
- (B) The “means for ” or “step for ” must be modified by functional language; and
- (C) The phrase “means for ” or “step for” must not be modified by sufficient structure, material, or acts for achieving the specified function.



# The first and second parts of the test are clearly met

A camera comprising:

**means** for forming an image,

*means* + *function*

**means** for zooming the image, and

*means* + *function*

**means** for storing the image.

*means* + *function*



## But is sufficient structure to perform the recited functions included in the claim language?

A review of the claim language shows no structure at all is recited in the claim.

**Claim 1: A camera comprising:  
means for forming an image,  
means for zooming the image,  
and  
means for storing the image.**

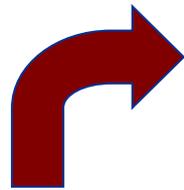


Therefore each of the three “means” limitations constitutes a means-plus-function limitation; and

Each claim limitation must be interpreted as required by 35 USC 112, sixth paragraph.



# Assume the specification discloses the following structure as support for means for zooming:



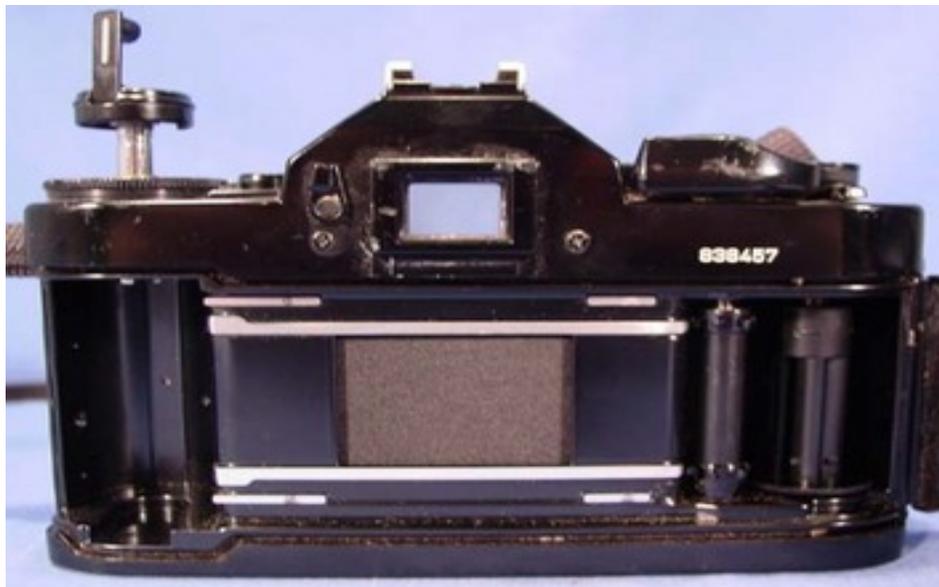
*Means for zooming*

The digital camera is capable of zooming the image by using digital zoom processor 200. This processor operates on the image by interpolating new pixels between existing pixels by using the following equation....



# Assume further that:

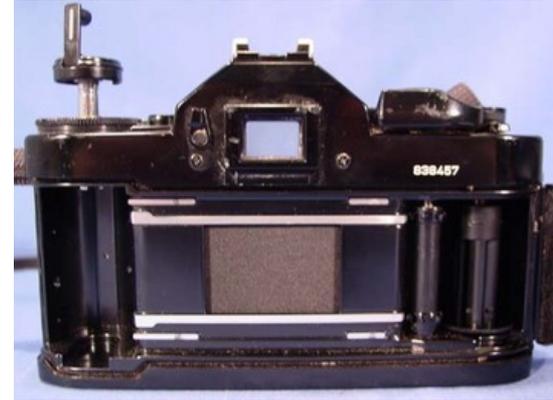
1. The examiner finds a reference that discloses a film camera apparatus, not a digital camera; and
2. The camera disclosed in the reference comprises a lens, a mechanical zoom lens and a film.



35 USC 112 - 6th Paragraph



# Could the elements of the claim be matched to those of the reference as follows for a rejection under 35 USC 102?



1. A camera comprising:

means for forming the image,

*a lens*

means for zooming the image,

*mechanical zoom lens*

and

means for storing the image.

*film.*



## Most likely, no...

The structure disclosed to perform the function of “zooming” is digital zoom processor 200.

The mechanical zoom lens found in the reference is not identical to this structure. However, this does not end the analysis.

One must then decide - is a “mechanical zoom lens” an equivalent to the digital “zoom processor” disclosed in the specification?



# Equivalents

Under 35 USC 112, sixth paragraph, means-plus-function limitations in a claim literally cover equivalents of structures disclosed in the specification for performing recited functions

But what is an equivalent?

See MPEP 2183



# Making a *Prima Facie* Case of Equivalence (MPEP 2183)

The examiner should ask the following questions:

(1) does the prior art element perform the function specified in the claim?

(2) does any explicit definition provided in the specification exclude the prior art element as an equivalent? and

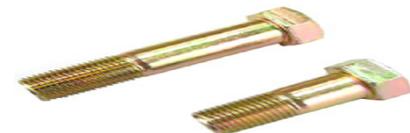
(3) is the prior art element an equivalent of the means-(or step) plus function limitation?



# What is an equivalent structure? (MPEP 2183)

- 1) Prior art element performs the function specified in the claim in substantially the same way, and produces substantially the same results as the corresponding element disclosed in the specification;
- 2) Whether one skilled in the art would recognize the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification;
- 3) Whether the prior art element is a structural equivalent of the corresponding element disclosed in the specification being examined; *or*
- 4) Whether there are insubstantial differences between the prior art element and the structure, material or acts disclosed in the specification.

*Examples above are not intended to be an exhaustive list of indicia, and only one of the above noted factors (or other rationale) need exist to support a finding of equivalence.*





# Make the record clear (MPEP 2183)

When the examiner finds that a prior art element is an equivalent, the examiner should provide an explanation and rationale in the Office action as to why the prior art element is an equivalent.

Thus, in the camera example, the examiner must make a determination whether a “mechanical zoom lens” of the prior art would have been considered an equivalent to the digital “zoom processor” at the time the invention was made.



# Make the record clear (MPEP 2183)

If the examiner determines that the prior art element is equivalent to the structure, material, or acts described in the applicant's specification, the examiner should conclude that the prior art anticipates the means- (or step-) plus-function limitation.

Examiners should also make a 35 U.S.C. 103 rejection where appropriate.

After the examiner has provided the appropriate explanation, Applicant then has the burden of proving nonequivalence (see MPEP 2184).



## 35 U.S.C. 112, ¶6 in relation to 35 U.S.C. 112, ¶2 (MPEP 2181 and 2185)

Does the written description adequately describe the structure, material or acts necessary to support the means- or step-plus-function recitation?



## 35 U.S.C. 112, ¶6 in relation to 35 U.S.C. 112, ¶2 (MPEP 2181 and 2185)

“Whether a claim reciting an element in means- (or step-) plus-function language fails to comply with 35 U.S.C. [112](#), second paragraph, because the specification does not disclose adequate structure (or material or acts) for performing the recited function is closely related to the question of whether the specification meets the description requirement in 35 U.S.C. [112](#), first paragraph.”  
(MPEP 2181)

Therefore, when a 112, 2nd paragraph issue arises for this reason (lack of adequate structure), then a 112, 1<sup>st</sup> paragraph rejection (written description) should also be made.



**A means-(or step)-plus-function claim limitation satisfies 35 U.S.C. 112, ¶ 1 (written description) and 112, ¶ 2 if:**

(1) written description links or associates particular structure, material, or acts to the function recited in a means- (or step-) plus function claim limitation; or

(2) it is clear that one skilled in the art would have known what structure, material, or acts perform the function recited in the means-(or step-) plus function limitation.



The duty to link or associate structure or function is the *quid pro quo* for the convenience of using 35 U.S.C. 112 ¶ 6.



# When a rejection under 35 U.S.C. 112, ¶ 2 may be appropriate.

- When it is unclear whether a claim limitation invokes 112, 6<sup>th</sup>;
- When there is no disclosure (or insufficient disclosure) of structure, material, or acts for performing the claimed function; and/or
- When applicant fails to clearly link or associate the disclosed structure, material, or acts to the claimed function.



**When it is unclear whether a claim limitation invokes 112, 6th, a rejection under 112, ¶ 2 may be appropriate.**

Example 1: the phrase “means for” is modified by some structure recited in the claim, but it is unclear whether the recited structure is sufficient for performing the claimed function.

In this situation, it is unclear whether the recited structure in the claim would preclude application of 112, 6<sup>th</sup> (failing the 3<sup>rd</sup> prong of the analysis).

Examiners should use form paragraphs 7.30.02, 7.34.01, and **7.34.16** to require applicant to clarify whether the limitation is invoking 112, 6<sup>th</sup>.



## When it is unclear whether a claim limitation invokes 112, 6th, a rejection under 112, ¶ 2 may be appropriate.

Example 2: the phrase “means for” is not used, and applicant rebuts the presumption that the limitation is not invoking 112, 6<sup>th</sup>, but the claim limitation is modified by some structure recited in the claim and it is unclear whether the recited structure is sufficient for performing the claimed function.

In this situation, it is unclear whether the recited structure in the claim would preclude application of 112, 6<sup>th</sup> (failing the 3<sup>rd</sup> prong of the analysis).

Examiners may use form paragraphs 7.30.02, 7.34.01, and **7.34.17** to require applicant to clarify whether the limitation is invoking 112, 6<sup>th</sup>.



**When there is no disclosure (or insufficient disclosure) of structure, material, or acts for performing the claimed function, a rejection under 112, 2nd, may be appropriate.**

In the digital camera example, the specification disclosed the digital zoom processor 200 with detailed explanations of the processor that performs the “zooming” function: “This processor operates on the image by interpolating new pixels between existing pixels by using the following equation...”

If the specification, however, did **not** provide the detailed explanations of the processor, and if one skilled in the art at the time of the invention would not have known how to accomplish the function of “zooming”, then the specification would have failed to disclose sufficient structure to perform the claimed function “zooming.” In this situation, the examiner should use form paragraphs 7.30.02, 7.34.01, and **7.34.18** to make the rejection under 112, 2<sup>nd</sup>.



**When applicant fails to clearly link or associate the disclosed structure, material, or acts to the claimed function, a rejection under 112, 2nd, may be appropriate.**

In the digital camera example, the specification clearly linked disclosed structure (digital zoom processor 200) to the claimed function “zooming” by providing the following statements: “The digital camera is capable of zooming the image by using digital zoom processor 200.” and “Using this, the image ends up to twice as large as the previous image.”

If these statements, however, are **missing**, then the applicant may have failed to clearly link or associate the disclosed structure to the claimed function. In this situation, the examiner should use form paragraphs 7.30.02, 7.34.01, and **7.34.19** to make the rejection under 112, 2<sup>nd</sup>.



**When applicant fails to clearly link or associate the disclosed structure, material, or acts to the claimed function, a rejection under 112, 2nd, may be appropriate (cont'd)**

In rare circumstances where the specification implicitly discloses the structure that performs the claimed function and one of ordinary skill in the art can identify the structure (112, 2<sup>nd</sup> is satisfied), the examiner may still require the applicant to amend the specification (or state on the record) to explicitly state, with reference to the terms and phrases of the claim, what structure performs the claimed function.

Examiners may use form paragraph 7.34.20.

**NOTE:** Remember, no new matter may be added to the specification.



Assume that Applicant successfully rebuts the presumption that “means-plus-function” language was not intended - thus the examiner now must interpret the claim limitation under 35 USC 112, 6<sup>th</sup> -

Must the examiner now perform a new search, possibly leading to a new rejection?

If examiner did a complete search of the invention as disclosed and claimed, then a new search should not be necessary.



# Searching both the claimed and disclosed inventions

**MPEP 706.07:** Before prosecution is brought to close, a clear issue should be developed between the examiner and applicant. To bring the prosecution to as speedy conclusion as possible and at the same time to deal justly [with] both the applicant and the public, **the invention as disclosed and claimed should be thoroughly searched in the first action** and the references fully applied; and in reply to this action the applicant should amend with a view to avoiding all grounds of rejection and objection. Switching from one subject matter to another in the claims presented by applicant in successive amendments, or from one set of references to another by the examiner in rejecting in successive actions claims of substantially the same subject matter, will alike tend to defeat attaining the goal of reaching a clearly defined issue for an early termination, i.e., either an allowance of the application or a final rejection.



How are claims to be interpreted if the language is not found to meet the 3-prong analysis for Means-plus-Function language set out in MPEP 2181?



# Claim Interpretation

During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.”

MPEP 2111

When claim language does not fall under 35 USC 112, sixth paragraph, claim limitations may be interpreted as reading on any prior art means or step which performs the function specified in the claim without regard for whether the prior art means or step is equivalent to the corresponding structure, material or acts described in the specification.

MPEP 2181



# Thank You!

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