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## (12) United States Patent

#### Ogino et al.

#### (54) IMAGING LENS AND IMAGING APPARATUS INCLUDING THE IMAGING LENS

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- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
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#### (30) Foreign Application Priority Data

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- (51) Int. Cl. *G02B 3/02* (2006.01) *G02B 13/00* (2006.01)

#### (10) Patent No.: US 9,128,267 B2

#### (45) **Date of Patent:** Sep. 8, 2015

#### (56) **References Cited**

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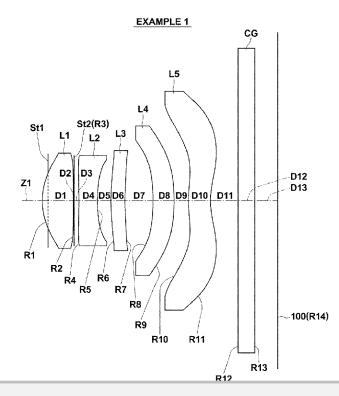
#### (57) ABSTRACT

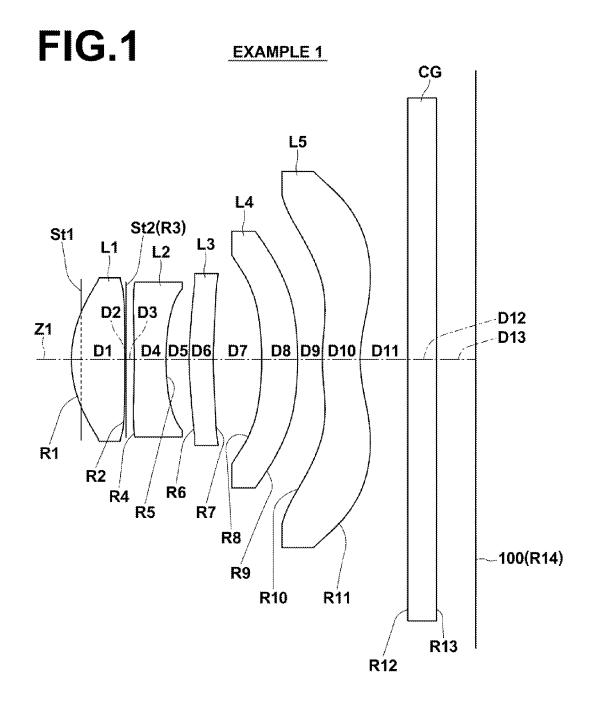
An imaging lens substantially consists of, in order from an object side, five lenses of a first lens that has a positive refractive power and has a meniscus shape which is convex toward the object side, a second lens that has a biconcave shape, a third lens that has a meniscus shape which is convex toward the object side, a fourth lens that has a meniscus shape which is convex toward the image side; and a fifth lens that has a negative refractive power and has at least one inflection point on an image side surface. Further, the following conditional expression (1) is satisfied.

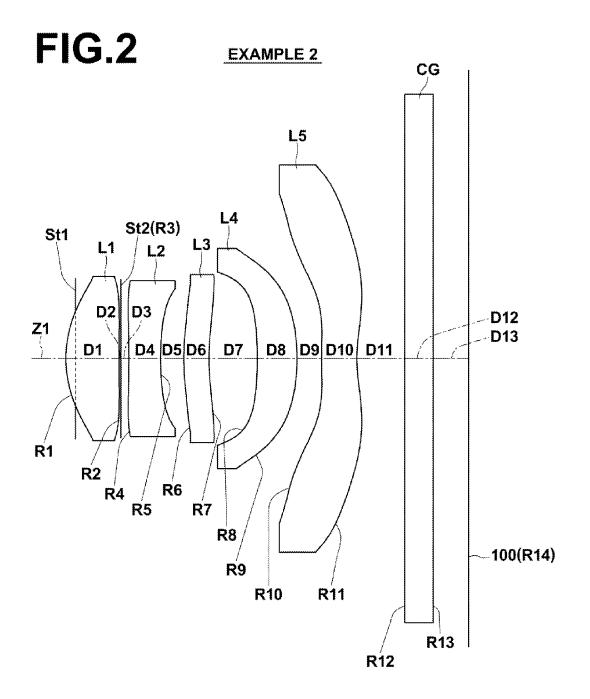
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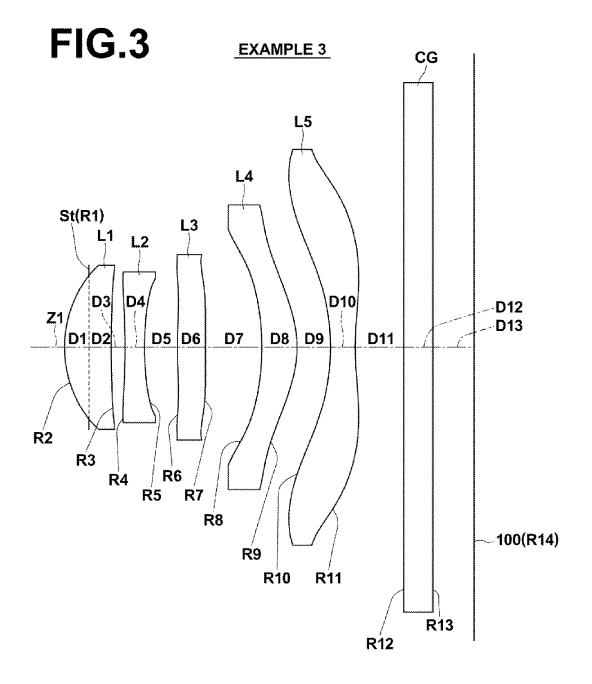
#### 21 Claims, 14 Drawing Sheets

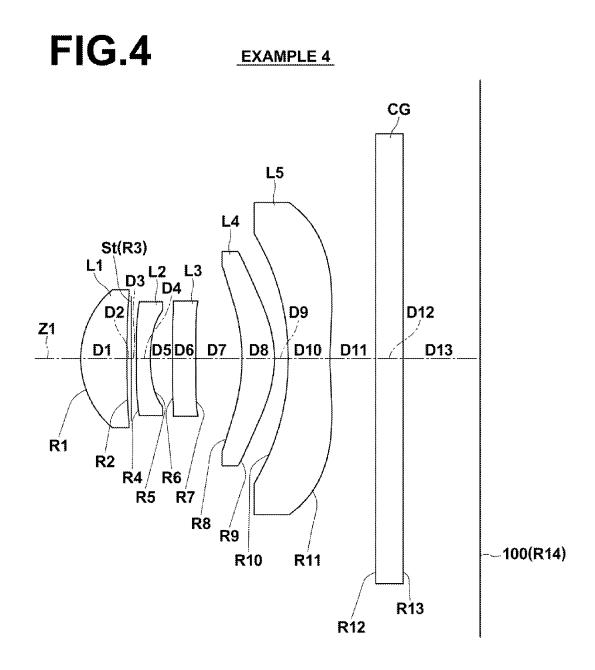
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