

Fig. 1

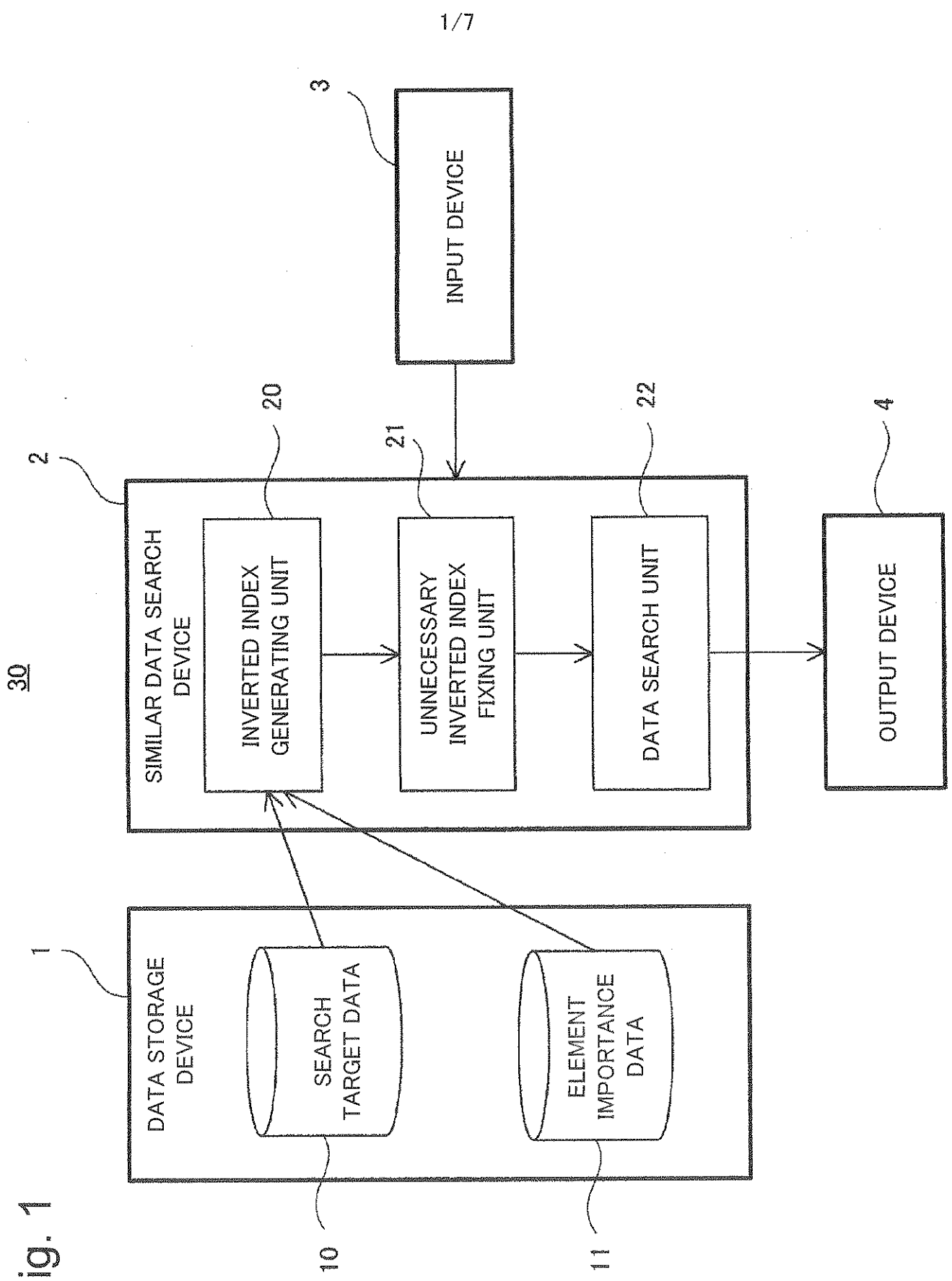


Fig. 2

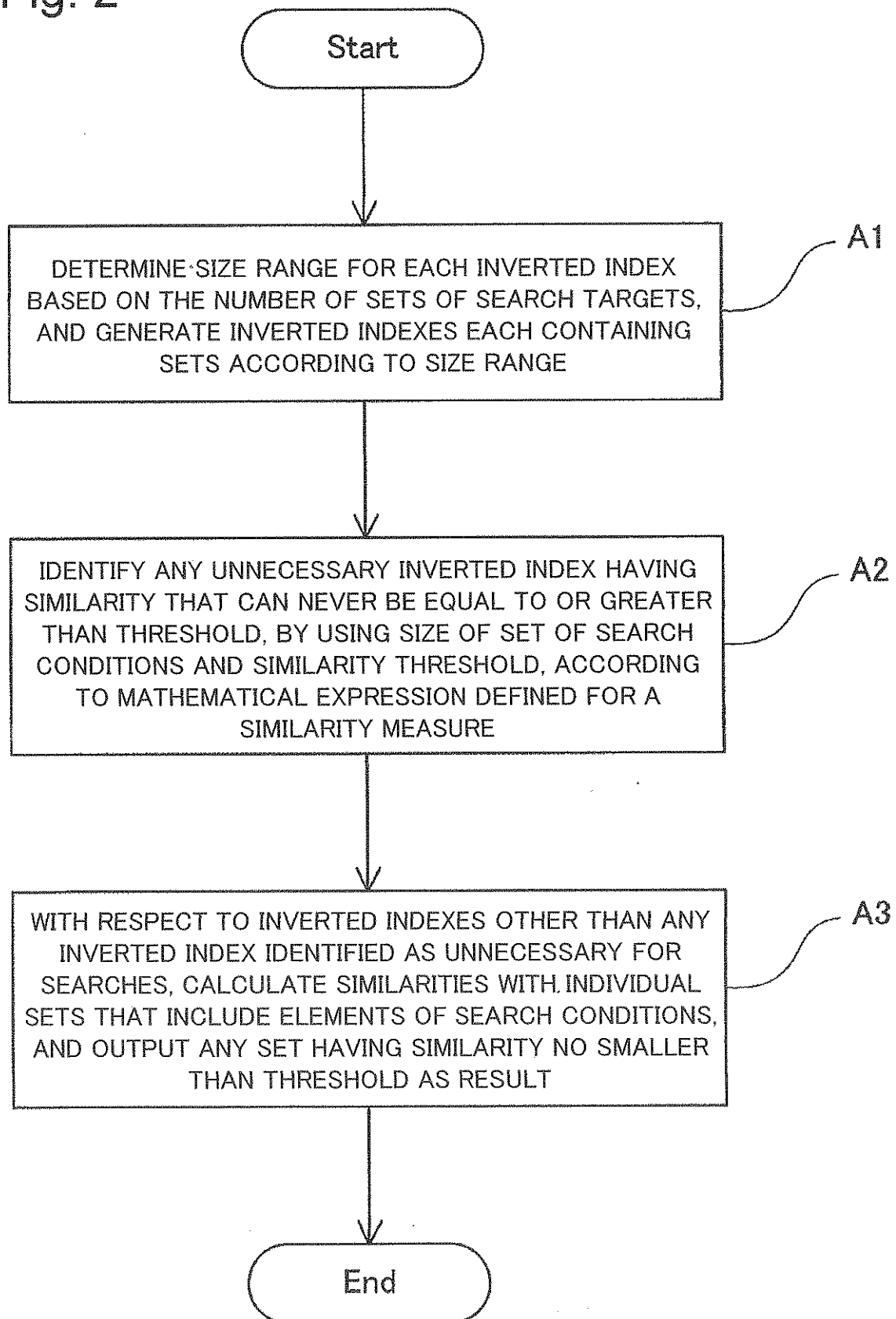


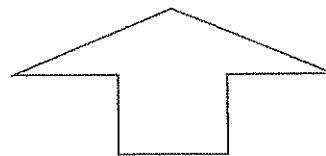
Fig. 3

SEARCH TARGET DATA (SET OF SEARCH TARGETS)

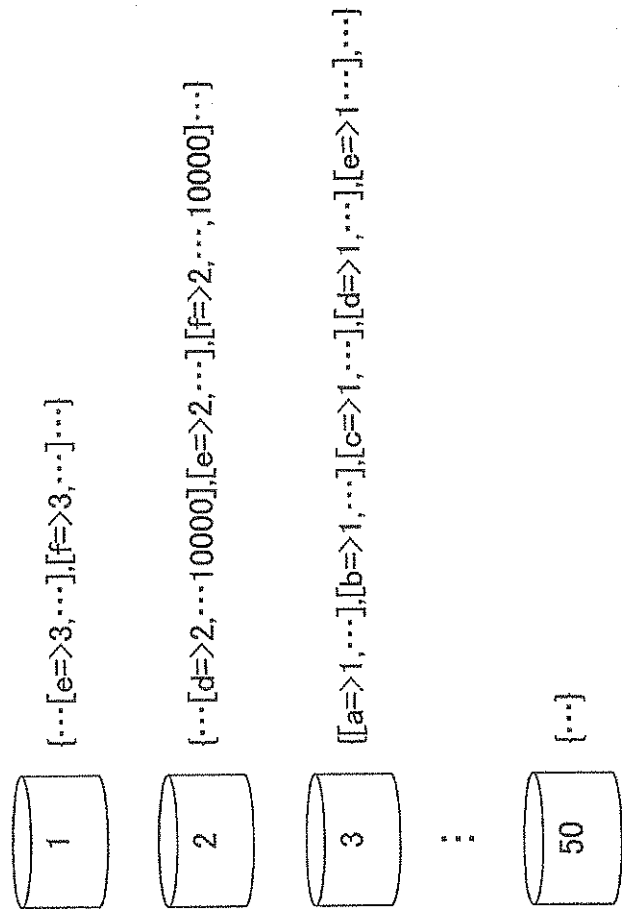
SID	ELEMENT	SIZE
1	a, b, c, d, e	6.8
2	d, e, f	5.5
3	c, e, f	3.3
...	...	...
10000	d, f	5.0

ELEMENT IMPORTANCE DATA

ELEMENT	IMPORTANCE
a	1.0
b	1.5
c	0.8
d	3.0
e	0.5
f	2.0
...	...



DIVIDE INTO 50
GROUPS



INVERTED INDEX ID (i)	MINIMUM VALUE OF SIZE (β_i)
1	0.5
2	3.5
3	6.0
4	8.0
...	...

Fig. 4

SIMILARITY MEASURE	Min D	Max D
Overlap(Q,D)	NONE	$ Q /\alpha$
Overlap(D,Q)	$\alpha Q $	NONE
Cosine	$\alpha^2 Q $	$ Q /\alpha^2$
Dice	$\alpha Q /(2-\alpha)$	$(2-\alpha) Q /\alpha$
jaccard	$\alpha Q $	$ Q /\alpha$

Fig. 5

SIMILARITY MEASURE	τ
overlap(Q,D)	$\alpha D $
overlap(D,Q)	$\alpha Q $
cosine	$\alpha Q D $
dice	$\alpha (Q + D)/2$
jaccard	$\alpha (Q + D)/(1+\alpha)$

Fig. 6

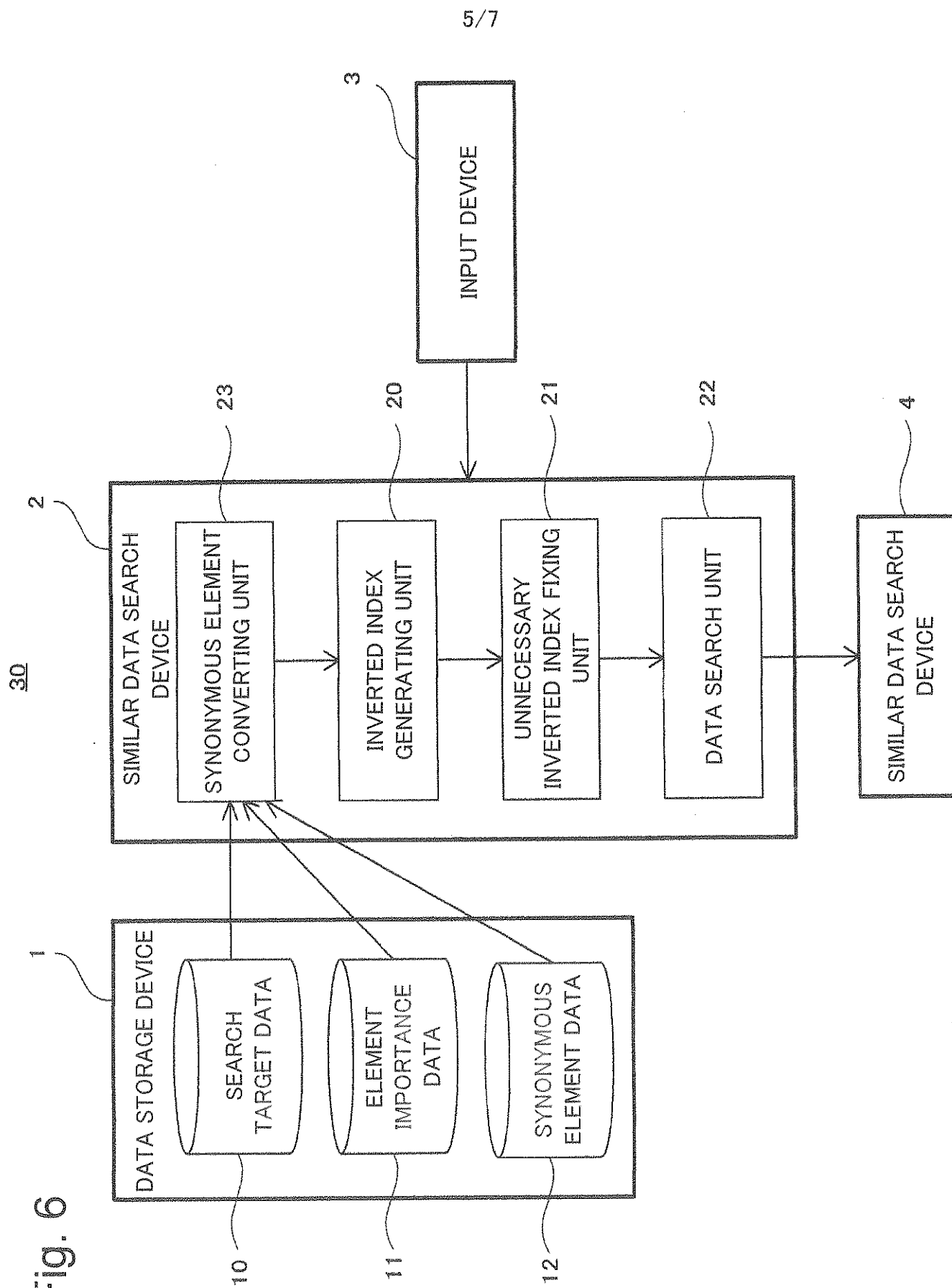


Fig. 7

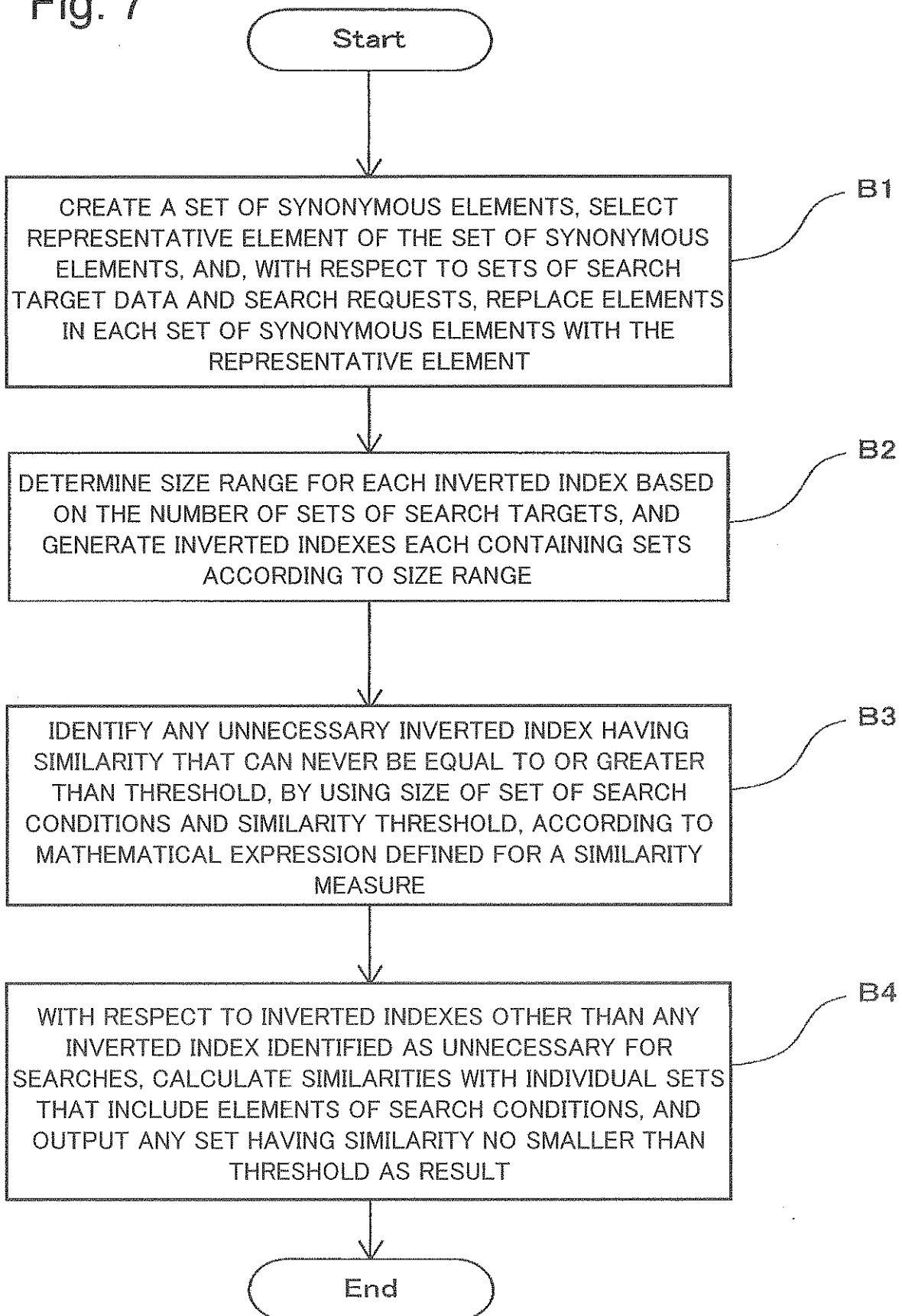


Fig. 8

