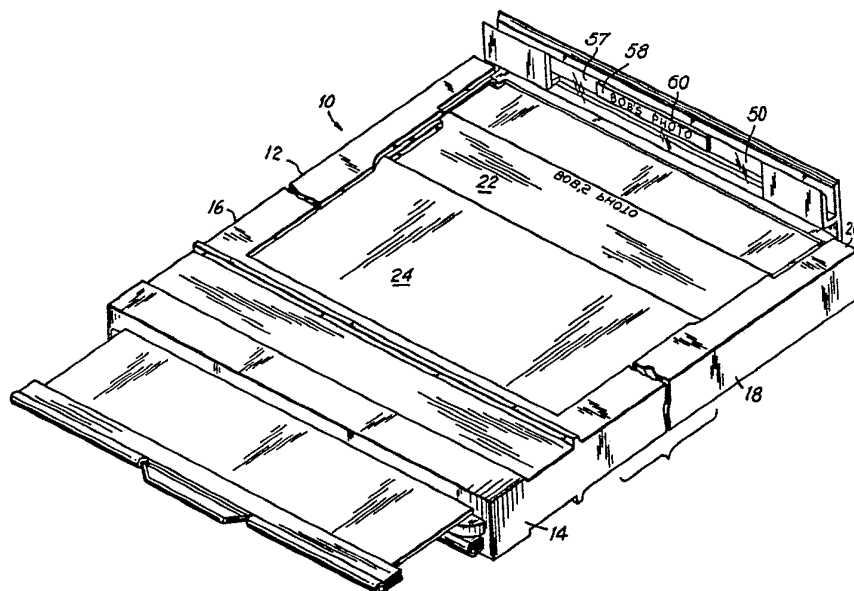




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/US88/00489 (22) International Filing Date: 22 February 1988 (22.02.88) (71)(72) Applicant and Inventor: LAMAR, Jon [US/US]; 948 South Alma School Road, #85, Mesa, AZ 85202 (US). (74) Agent: FLICKINGER, Don, J.; 1700 North Seventh Street, Suite Three, Phoenix, AZ 85006 (US). (81) Designated States: AT, AT (European patent), AU, BB, BE (European patent), BG, BJ (OAPI patent), BR, CF (OAPI patent), CG (OAPI patent), CH, CH (European patent), CM (OAPI patent), DE, DE (European patent), DK, FI, FR (European patent), GA (OAPI patent), GB, GB (European patent), HU, IT (European patent), JP, KP, KR, LK, LU, LU (European patent), MC, MG, ML (OAPI patent), MR (OAPI patent), MW, NL, NL (European patent), NO, RO, SD, SE, SE (European patent),		SN (OAPI patent), SU, TD (OAPI patent), TG (OAPI patent). Published <i>With international search report.</i>

(54) Title: SHEET FILM HOLDER



(57) Abstract

A sheet film holder (10) with a device to expose a portion of the unused film edge (22) to a logo, copyright notice or other desired media (60). The top and bottom rear portions of a dual sheet holder are hingedly connected to the rear wall (20). The central portion of the bottom arm and the connecting member (46) of the side channel are made of light conducting material (52, 54, 56). An opaque acetate (58) with clear media (60) is secured to the bottom side of the material portion of the arm (44). When the film (22) and a slide (24) is secured in position within the rear channels (26, 30), the film (22) remains unexposed, except for the light which is conducted via the material (52, 54, 56), through the clear portion of the acetate (50) and the film (22) edge. This desired media (60) will appear on the film when it is developed.

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DESCRIPTION

SHEET FILM HOLDER

5 The invention relates to sheet film holders, and more particularly to a holder which will expose media as chosen by the photographer along the normally unused edge of the film.

10 Sheet film holders are well known in the photographic industry. Particularly familiar are the type usually used by newspaper photographers. Generally, the camera includes a holder having two sheets of film in it with dark slides to prevent exposure of the film. The holder is placed into the back of the camera, the slide
15 removed, and an exposure made through the camera. The slide is then replaced and the holder rotated so that the other sheet of film could be exposed. When the two sheets had been exposed the holder is removed and sent for developing.

20 A typical sheet film holder is the model number 1284 made by Graflex, Inc. of Rochester, New York.

 Because the sheet of film is placed within a channel within the holder, a border of unexposed film extends along the outside edge. The border is usually
25 approximately an eighth of an inch. Photographers have become very conscious of the need to protect their work from copying or to make certain that their work is properly attributed. Accordingly, it is desirable to either place some type of media on a photograph, such as
30 a copyright notice, or a logo which is identified with the particular photographer. It is known to place media upon a film through a translucent plate having a directing light area for inscription along a portion of the film. This system is complicated and requires
35 special equipment to expose a section of the film while protecting the rest of the film. The system includes a unit which is separate from the holder but which must be used in combination with the holder. The process is more

involved than is necessary and the device operates by exposing a whole area except for where the marks are desired to be placed.

Another approach to this problem has been to develop
5 a separate unit such as the JUTA Signature Flash Box. This device allows placement of sheet film in a particular unit which is then briefly exposed though light a strip along the margin so that the desired media may be permanently exposed into the film.

10 Accordingly, it is among the principal objects of the present invention to provide a sheet film holder with means to expose desired media on the sheet film, all contained within the holder itself.

Another object of the present invention is to
15 provide a sheet film holder of the character described which requires no separate steps apart from what has previously been necessary to place the sheet film within the holder.

And another object of the present invention is to
20 provide a sheet film holder with means to expose desired media, the exposure taking place in that portion of the sheet film which is normally unexposed during picture taking and which at the time of development is normally unused.

25 Still another object of the present invention is to provide a holder of the construction described which eliminates the problem of light leakage on the normal film area.

Yet another object of the present invention is to
30 provide an improved sheet film holder where there is no need to apply media for each exposure of sheet film.

And a further object of the present invention is to
provide a unique and novel holder which does not require use of opaque material such as powder, which is difficult
35 to handle, and which could result in changes in the media as each separate exposure occurs.

Still a further object of the present invention is to provide an improved sheet film holder which is simple

and economical to manufacture, and yet is highly durable in use.

Disclosure of Invention

The improved sheet film holder consists of a normal holder in which the outer portions of the rear wall have been replaced by a hinged member including a channel for receiving a dark slide. The member may be made of translucent light conducting material, a portion of which has been made opaque or standard opaque material with a portion removed and replaced by translucent light conducting material. The light conducting material starts at the outer service and forms the connecting arm of the channel as well as the bottom or inner arm of the channel. On the inner surface of the bottom arm a strip of acetate may be placed. The strip is opaque except for that portion in which media is located. The media may consist of a copyright notice, logo, or anything else desired by the photographer. After the strip is placed in position the hinged member is pivoted into its normal position. The film may be placed in position within a darkroom and the dark slide placed over the film, the distal edge of the slide being received within the channel of the hinged member. The holder may then be removed from the darkroom and placed in ordinary ambient light. The light passes through the translucent portion of the hinged member, passing through the connecting member and the lower arm with light passing through the clear part of the strip causing those clear areas to be exposed against the outer edge of the film. When the holder is used in a camera and the film is exposed through the camera, development will result not only in a normal picture but in the media appearing in the margin at the indicated location.

Brief Description Of Drawings

The above description, as well as further objects and advantages of the present invention will be more fully appreciated with reference to the following

detailed description of a preferred, but none-the-less an illustrative embodiment of the invention, when taken in conjunction with the following drawings wherein:

Fig. 1 is a front prospective view, partly cut away, with the dark slide partially removed from the normal covering position and with the hinged member pivoted upwardly, exposing the distal portion of the film and showing the positioning of the media after having been exposed;

Fig. 2 is a top plan view of the device of Fig. 1;

Fig. 3 is an enlarged fragmentary vertical sectional view taken along the lines of 3-3 of Fig. 2 and showing how ambient light is conducted through the translucent member and onto the film; and

Fig. 4 is a cross-sectional view, partly cut away, taken along the lines 4-4 of Fig. 2.

Best Modes For Carrying Out Invention

Turning in detail to the drawings, and more particularly to Fig. 1, there is shown an improved sheet film holder 10 comprising a frame defined by a front walls 14, left and right side wall 16, 18 and a rear wall 20. A sheet of film 22 is received in the usual fashion and is covered by a dark slide 24 in the usual fashion.

Turning to Fig. 4, and concentrating only on one half of the dual sheet film holder, the film 22 is received within a standard film channel 26 and rests against the back plate 28 which separates the two sheets of film. Prior to exposure and after exposure the film is protected by the dark slide 24 which is received within the slide channel 30. The top of the holder is further defined by top left and right side walls 32, 34, top front wall 36 and top rear wall 38.

As seen in Fig. 3, the hinged member 39 is secured to the rear wall 20 by means of an internal hinge 40 and includes a rear channel 42 defined by an outer arm 44 a connecting member 46 and an inner arm 48. The whole member or a portion of the member may have a light

conducting portion 50. The light conducting portion includes a top wall portion 52 commencing at the outer surface or exposed to the ambient light, a connecting member portion 54 which includes the connecting member 46 and an inner arm portion 56 which includes the inner arm 48. The member 39 pivots to an upright position as shown in Fig. 1 to facilitate insertion and removal of the film 22, as well as placement of the strip 58.

Positioned against the bottom surface 57 of the inner arm is a strip 58 which can be made of acetate, commercially available as Kodalith, and may be opaque except for a clear portion to delineate the media 60. The strip 58 abuts the edge of the film which is not exposed and which forms the border of the negative. The light may pass from the atmosphere and is designated by light rays 62 passing through the portions 52, 54, 56, through the media 60 and on to the edge of the unexposed film. The continuing light passing through the non-opaque portions of the strip 58.

When the dark slide 24 is removed after the holder has been placed in the camera, the film is exposed in the normal usage by the photographer. After usage the dark slide is replaced, the holder is removed, and ultimately, the sheet of film is developed. During the developing the media will appear along the edge in the normal fashion as any other exposed portion of the film. The remaining portion of the edge will appear white in the normal manner, since the edge had not been exposed to light when the picture was taken.

Once film holders have been adapted, the only additional step required for media to be placed upon sheet film is to prepare an acetate strip and place it in position along the bottom surface of the inner arm of the hinged member. After that is done, sheet film is placed in position and removed, with pictures being taken in the normal fashion.

Thus, there is provided a very simple mechanism for achieving a desired result, and eliminating much complex

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additional materials and added processing steps.

As can be seen, the present invention provides a significant advance over the state of the technology. As numerous additions, modifications and constructions can
5 be performed within the scope of the invention, such scope is to be measured by the claims herein.

CLAIMS

1. An improved sheet film holder to provide a desired media exposure for a sheet of film which comprises:

5 a. sheet film holder means having front, side
and rear walls and holding at least one
sheet of film with a dark slide to protect
the film from exposure;

10 b. at least one of said walls having a member
with a channel receiving an edge of said
slide;

c. said member further including a light
conducting material portion, said portion
having an inner surface abutting the film;
15 and

d. a strip having media thereon secured to
the inner surface of the light conducting
portion of the member, the sheet of the
film having an edge directly underneath
20 the inner surface;

whereby the light passing through the light conducting portion of the inner arm exposes the edge of the film hence exposing the media thereon to the edge of the film.

2. The invention according to Claim 1, wherein said member includes a hinge pivotally connected to the rear wall for rotational movement of the member for facilitating insertion and removal of the film and the strip.

3. The invention according to Claim 1, wherein the
35 channel receiving the slide is defined by an outer arm
and the light conducting portion.

4. The invention according to Claim 5, wherein the holder includes a back plate for receiving the sheets of film on each side thereof, and having a member on each side thereof.

5

5. The invention according to Claim 2, wherein the light conducting portion includes a connecting member and an inner arm formed with the inner surface, conducting ambient light into the interior of the holder, and through the non-opaque portions of the strip.

10

6. The invention according to Claim 1, wherein the light conducting portion includes a connecting member and an inner arm formed with the inner surface, conducting ambient light into the interior of the holder, and through the non-opaque portions of the strip.

15

7. The invention according to Claim 6, wherein the member includes a hinge, the hinge being pivotally connected to the rear wall to allow rotational movement of the member for facilitating insertion and removal of the film and the strip.

20

8. The invention according to Claim 6, wherein the channel receiving the slide is defined by an outer arm and the light conducting portion.

25

9. The invention according to Claim 8, wherein the holder includes a back plate with the sheets of film on each side thereof, and having a member on each side thereof.

30

1 / 2

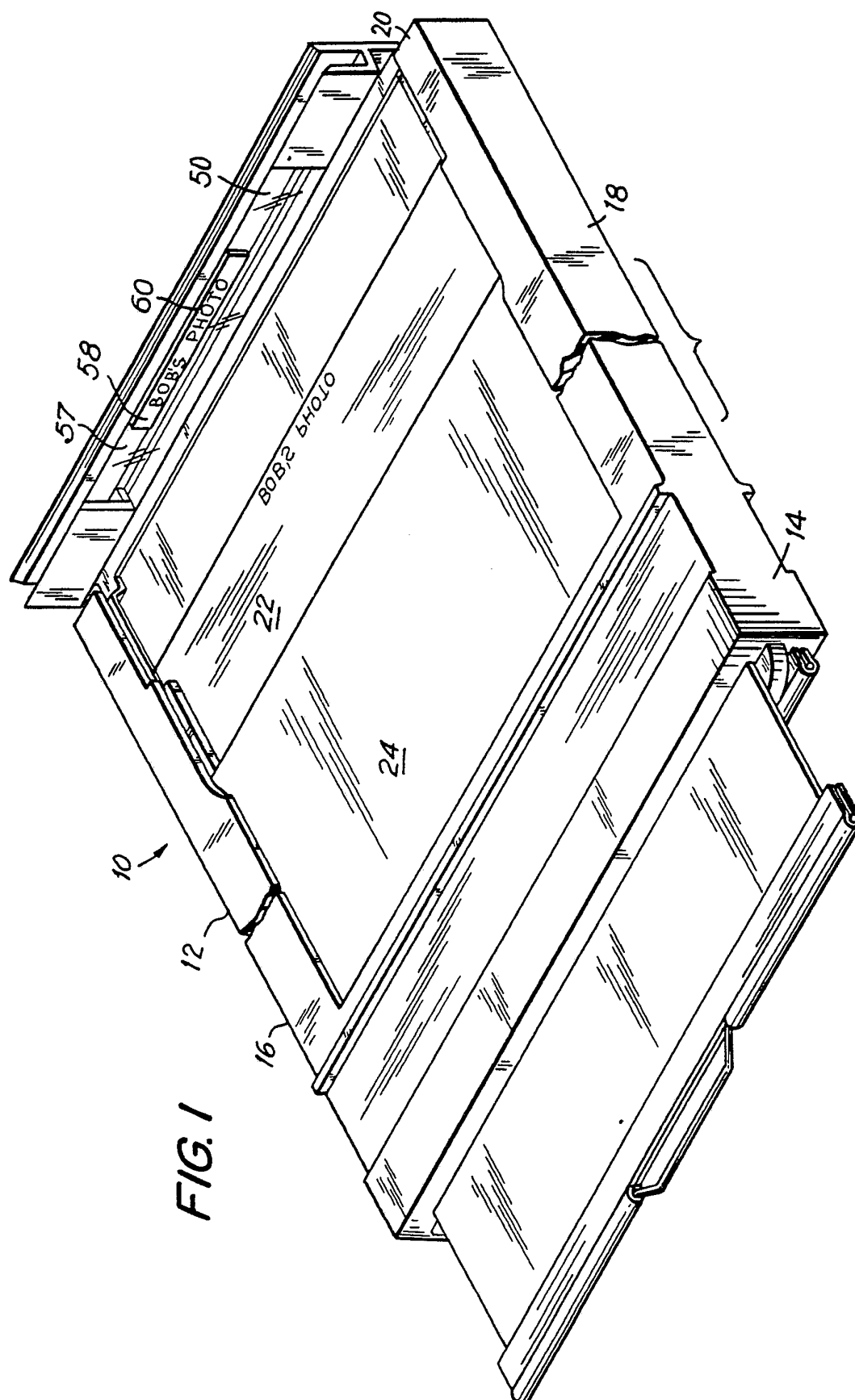


FIG. 1

FIG. 2

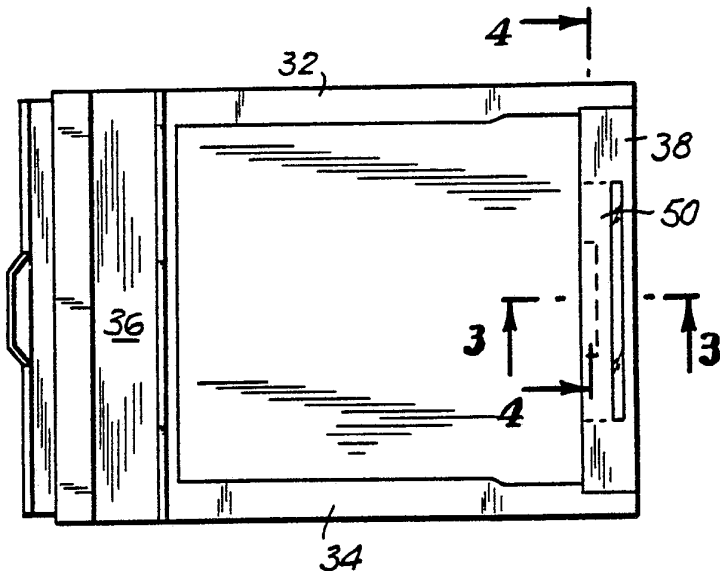


FIG. 3

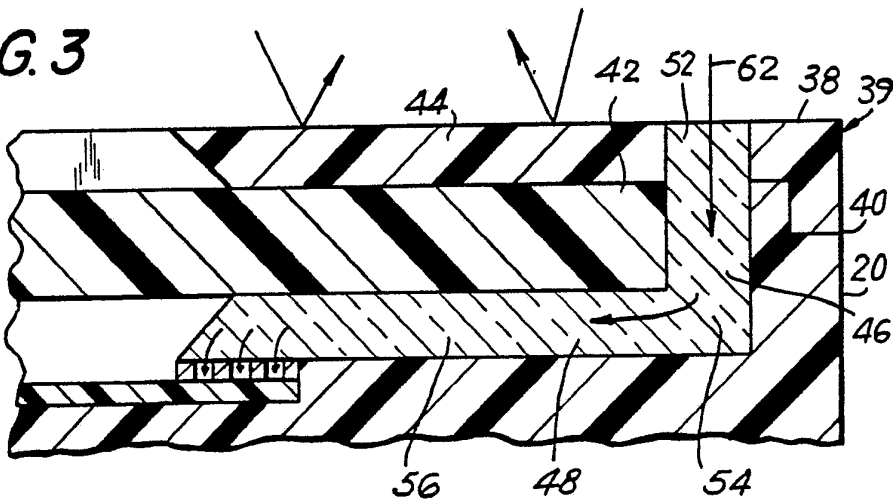
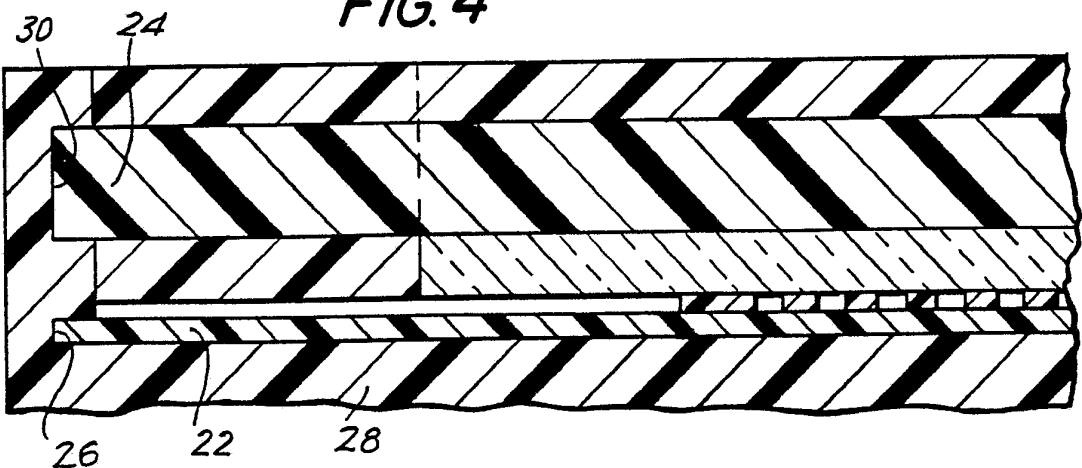
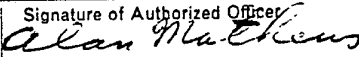


FIG. 4



INTERNATIONAL SEARCH REPORT

International Application No. PCT/US88/00489

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC		
IPC(4): G03B 17/34		
U.S. Cl. 354/107		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
U.S.	354/105, 106, 107, 108, 109	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹		
Category [*]	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
A	US, A, 1,323,364 (HOOD) 02 DECEMBER 1919 SEE ENTIRE DOCUMENT.	1-9
A	US, A, 1,330,235 (BOXELL) 10 FEBRUARY 1920 SEE ENTIRE DOCUMENT.	1
A	US, A, 1,376,032 (OZOLS) 26 APRIL 1921 SEE ENTIRE DOCUMENT.	1-9
A	US, A, 2,188,843 (PAPPAJION) 30 JANUARY 1940 SEE ENTIRE DOCUMENT	1-9
A	US, A, 2,315,987 (SMITH) 06 APRIL 1943 SEE ENTIRE DOCUMENT.	1-9
A	US, A, 2,377,226 (GREER) 29 MAY 1945 SEE ENTIRE DOCUMENT.	1-9
A	US, A, 3,631,243 (BYLER ET AL.) 28 DECEMBER 1971 SEE COLUMN 5.	1
A	US, A, 3,916,423 (UEDA ET AL.) 28 OCTOBER 1975 SEE ENTIRE DOCUMENT.	1-9
[*] Special categories of cited documents: ¹⁰ "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search		Date of Mailing of this International Search Report
27 APRIL 1987		08 JUN 1988
International Searching Authority		Signature of Authorized Officer
ISA/US		 ALAN MATHEWS

FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

A	US, A, 4,268,144 (WHEELER) 19 MAY 1981 SEE ENTIRE DOCUMENT.	1-9
A	US, A, 4,634,249 (TOMIDOKORO) 06 JANUARY 1987 SEE ENTIRE DOCUMENT.	1-9

V. ☐ OBSERVATIONS WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE¹

This International search report has not been established in respect of certain claims under Article 17(2) (a) for the following reasons:

1. ☐ Claim numbers _____, because they relate to subject matter^{1,2} not required to be searched by this Authority, namely:

2. ☐ Claim numbers _____, because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out^{1,3}, specifically:

3. ☐ Claim numbers _____, because they are dependent claims not drafted in accordance with the second and third sentences of PCT Rule 6.4(a).

VI. ☐ OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING²

This International Searching Authority found multiple inventions in this international application as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims of the international application.

2. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the international application for which fees were paid, specifically claims:

3. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim numbers:

4. ☐ As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee.

Remark on Protest

- ☐ The additional search fees were accompanied by applicant's protest.
☐ No protest accompanied the payment of additional search fees.