



(22) Date de dépôt/Filing Date: 2002/03/20

(41) Mise à la disp. pub./Open to Public Insp.: 2003/09/20

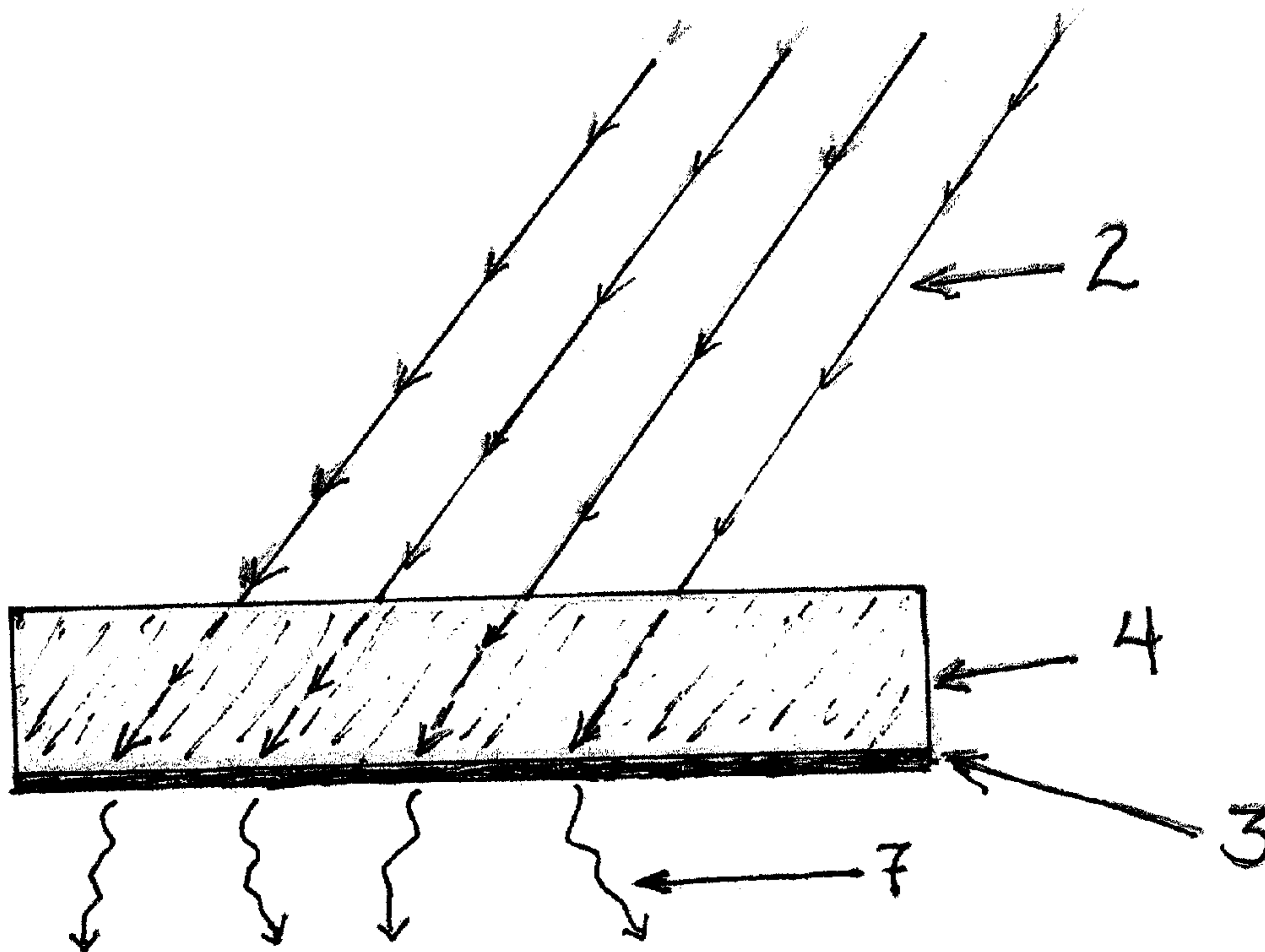
(51) Cl.Int.⁷/Int.Cl.⁷ A41D 31/00, F24J 2/00

(71) Demandeur/Applicant:
SORIANO, FLORENCIO VIRGILIO R., CA

(72) Inventeur/Inventor:
SORIANO, FLORENCIO VIRGILIO R., CA

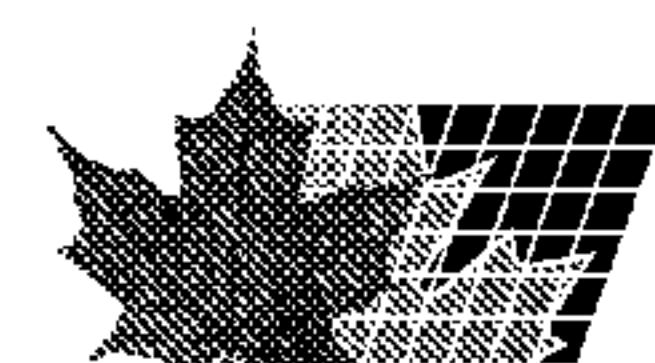
(54) Titre : COUCHE D'ABSORPTION DE CHALEUR SOLAIRE

(54) Title: SOLAR SKIN



(57) Abrégé/Abstract:

IT IS AN IMPROVEMENT ADDED TO PRESENT DAY WINTERWEAR FOR THE PURPOSE OF CONVERTING SOLAR ENERGY INTO HEAT ENERGY. CLEAR TRANSPARENT PLASTIC IS ADDED UPON AND ATTACHED OVER THE SURFACE OF ANY DARK COLORED WINTERWEAR SUCH AS JACKETS, GLOVES, COVERALL AND WINTERBOOTS. SOLAR RAYS PASSES THROUGH THIS CLEAR TRANSPARENT PLASTIC AND IS CONVERTED INTO HEAT ENERGY UPON TOUCHING THE SURFACE OF THIS DARK COLORED WINTERWEAR, THIS SAME HEAT IS THEN TRAPED UNDERNEATH THE INSULATING PROPERTIES OF PLASTIC.



Abstract

IT IS AN IMPROVEMENT ADDED TO PRESENT DAY WINTERWEAR FOR THE PURPOSE OF CONVERTING SOLAR ENERGY INTO HEAT ENERGY.

CLEAR TRANSPARENT PLASTIC IS ADDED UPON AND ATTACHED OVER THE SURFACE OF ANY DARK COLORED WINTERWEAR SUCH AS JACKETS, GLOVES, COVERALL AND WINTERBOOTS.

SOLAR RAYS PASSES THROUGH THIS CLEAR TRANSPARENT PLASTIC AND IS CONVERTED INTO HEAT ENERGY UPON TOUCHING THE SURFACE OF THIS DARK COLORED WINTERWEAR, THIS SAME HEAT IS THEN TRAPED UNDERNEATH THE INSULATING PROPERTIES OF PLASTIC..

Specification

THIS INVENTION RELATES TO THE USE OF SOLAR ENERGY AS A SOURCE TO PRODUCE HEAT IN ANY DARK COLORED WINTERWEAR.

ON A SUNNY COLD WINTERDAY COMMON WINTERWEAR CANNOT ABSORB SOLAR ENERGY FOR HEATING. pPRESENT DAY WINTERWEAR LIKE GLOVES, JACKETS COVERALL, WINTERSHOES USE INSULATION TO PREVENT HEAT LOSS OF THE BODY AS WELL AS INSULATING ITSELF FROM THE COLD AIRSPACE ONLY.

I HAVE FOUND BASED FROM WINTER EXPERIMENTS PERFORMED THAT BY ADDING CLEAR PLASTIC COVERING OVER THE OUTER SURFACE OF ANY COMMON WINTERWEAR PROVIDED THE SURFACE TO BE COVERED BY PLASTIC IS DARK IN COLOR CAN NOW ABSORB LIGHT OR SOLAR RAYS TO BE USED FOR HEAT. I HAVE FOUND THAT ANY COLOR PRODUCE HEAT AS LONG AS IT IS DARK IN COLOR.

I ALSO HAVE FOUND THAT THIS CLEAR PLASTIC COVERING THIS DARK COLORED WINTER-WEAR HAS TWO FUNCTIONS, ONE AS A GOOD THERMAL INSULATION SECOND AS SOLAR COLLECTOR.

THIS INVENTIVE IDEA WAS TAKEN FROM MY EXPERIMENTS ON A SUNNY WINTER. ON MARCH 10, 1998 AT 9:30 A.M. HERE IN EDMONTON ALBERTA, I PLACED A BLACK CLOTH INSIDE A CLEAR TRANSPARENT PLASTIC BAG, TOGETHER WITH THE BLACK CLOTH I ALSO INSERTED WITH IT A DIGITAL THERMOMETER TO RECORD TEMPERATURE INSIDE THE PLASTIC BAG I HAVE CLOSED, FIRST I GOT OUTDOOR READING TEMPERATURE OF -13.2 degree celsius , AFTER GETTING THE OUTDOOR READING I THEN PLACED THE PLASTIC BAG WITH THE BLACK CLOTH AND THERMOMETER DIRECTLY UNDER THE SUN. AFTER SEVERAL MINUTES OF THIS PLASTIC BAG BEING UNDER THE SUN, I VIEWED THE THERMOMETER READING INSIDE THE BAG AND GOT A WARM READING OF +24 degree celsius, I TRIED USING OTHER COLORS BESIDES BLACK CLOTH AND HAS OBTAINED SAME RESULTS OF HIGH PLUS TEMPERATURES. I HAVE FOUND THAT DARKER COLORS PRODUCE MORE PLUS TEMPERATURE THAN LIGHTER COLORS.

IN DRAWINGS WHICH ILLUSTRATE FROM THE BEGINNING OF MY EXPERIMENT DESCRIBED IN FIGURE 1 AND FIGURE 2 WHICH DEVELOPED INTO AN INVENTION DESCRIBED IN FIGURE 3 AND FIGURE 4. FIGURE 1 SHOWS THE SURFACE OR TOP VIEW OF THE CLEAR TRANSPARENT PLASTIC BAG NUMBERED 4 , INSIDED THIS CLEAR BAG IS A BLACK CLOTH NUMBERED 3 AND A DIGITAL THERMOMETER FOR TEMPERATURE READING NUMBERED 6 WHICH INDICATED A READING OF +24 degree celsius AS I HAVE JUST DESCRIBED AFTER BEING UNDER THE SUN FOR FEW MINUTES WHEN OUTDOOR TEMPERATURE WAS -13.2 degree celsius. NUMBER 5 IS THE OPENING OF THE BAG WHICH I CLOSED. FIGURE 2 SHOWS THE SIDE VIEW

FIGURE 2 SHOWS THE SIDE VIEW OF FIGURE 1, IN FIGURE 2 LIGHT RAYS ARE DRAWN AS PERPENDICULAR LINES WITH ARROWS NUMBERED 2 HEADING DIRECTLY TOWARDS NUMBER 3 WHICH IS THE BLACK CLOTH. SOLAR RAYS ARE CONVERTED INTO HEAT AS THIS LIGHT RAYS NUMBERED 2 STRIKES THE BLACK CLOTH NUMBERED 3, HEAT GENERATED THEN IS RECORDED BY NUMBER 6 WHICH IS THE THERMOMETER AND 5 IS THE OPENING OF THE PLASTIC BAG I CLOSED.

IN FIGURE 3 AND FIGURE 4 THINGS ARE SHOWN ON HOW THE EXPERIMENT WORK AND HOW IT CAN BE PUT TO USE. IN FIGURE 3 SOLAR RAYS PASS THROUGH THE CLEAR TRANSPARENT PLASTIC NUMBER 4 AND THIS LIGHT NUMBERED 2 STRIKES 3 WHICH IS ANY DARK COLORED FABRIC, NUMBER 2 OR SOLAR RAYS ARE CONVERTED INTO HEAT SHOWN AS CURVED LINES WITH ARROWS NUMBERED 7 TRAPED UNDER THE INSULATING PROPERTIES OF NUMBER 4 WHICH IS CLEAR PLASTIC. IN FIGURE 3 I HAVE LIFTED NUMBER 4 ABOVE NUMBER 3 IN ORDER TO GET A CLEAR VIEW OF NUMBER 7 IN DRAWING WHICH IS HEAT, ZERO IS THE SPACE PROVIDED FOR THE LAYER OF INSULATION UNDER FABRIC NUMBER 3 THAT COMMON PRESENT DAY WINTERWEAR USES, ZERO IS NOT OMITTED BECAUSE CLOUDS OR TALL STRUCTURES COULD BLOCK SOLAR RAYS SOMETIMES.

IN FIGURE 4 NUMBER 2 OR LIGHTRAYS PASS THROUGH THIS CLEAR TRANSPARENT PLASTIC NUMBERED 4 AND STRIKES NUMBER 3 WHICH IS A FABRIC OF ANY COLOR PREFERABLY DARK TO PRODUCE MORE HEAT UPON CONTACT WITH NUMBER 2 , HEAT CONVERTED THEN PROTECT NUMBER 5 WHICH IS HUMAN FLESH OR BODY IN THE COLD SUNNY WINTER DAY. ZERO IS THE SPACE PROVIDED FOR THE LAYER OF INSULATION THAT COMMON PRESENT DAY WINTERWEAR USES , ZERO IS STILL INCLUDED JUST IN CASE A CLOUD COVERS THE SUN.

IN FIGURE 5 NUMBER 4 IS THE SURFACE OF THE CLEAR PLASTIC, UNDER THE SURFACE OF THE CLEAR PLASTIC IS A COAT OF PAINT NUMBER 3.

IN FIGURE 6 A MAGNIFICATION AND SIDE VIEW OF FIGURE 5 IS SHOWN, LIGHT PASS THROUGH THE SURFACE OF THE CLEAR PLASTIC NUMBER 4, SOLAR RAYS NUMBERED 2 THEN IS ABSORBED BY NUMBER 3,

THIS SOLAR RAYS ARE THEN CONVERTED INTO HEAT NUMBERED 7 DRAWN AS CURVED
LINES WHICH CAN THEN BE APPLIED FOR USE OR WORK IN ALL WINTERWEAR AS
DESCRIBED IN FIGURE 4, HOWEVER INSTEAD OF COLORED FABRIC AS DESCRIBED
IN FIGURE 4 THE COLOR ITSELF IS COATED UNDER THE SURFACE OF THE PLASTIC.

ALL THESE FIGURES DESCRIBED FROM FIGURE 1 UP TO FIGURE 6
ARE THE STAGES OF THE DEVELOPMENT OF MY INVENTION.

THE EMBODIMENTS OF THE INVENTION WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS.

1) A CLEAR FLEXIBLE TRANSPARENT PLASTIC SHEET WITH ONE SIDE COATED WITH PAINT OF ANY COLOR, SOLAR RAYS PASS THROUGH THE TRANSPARENT SURFACE OF THIS PLASTIC AND COMES INTO CONTACT WITH THE COLORED PAINT COATED UNDERNEATH THE SURFACE OF THIS CLEAR PLASTIC, THIS SOLAR RAYS ARE THEN CONVERTED INTO HEAT, BECAUSE OF THE PLASTICS INSULATING EFFECT HEAT STAYS UNDER THE SURFACE OF THE PLASTIC MAKING IT VERY EFFECTIVE HEATING DEVICE FOR ANY WINTERWEAR.

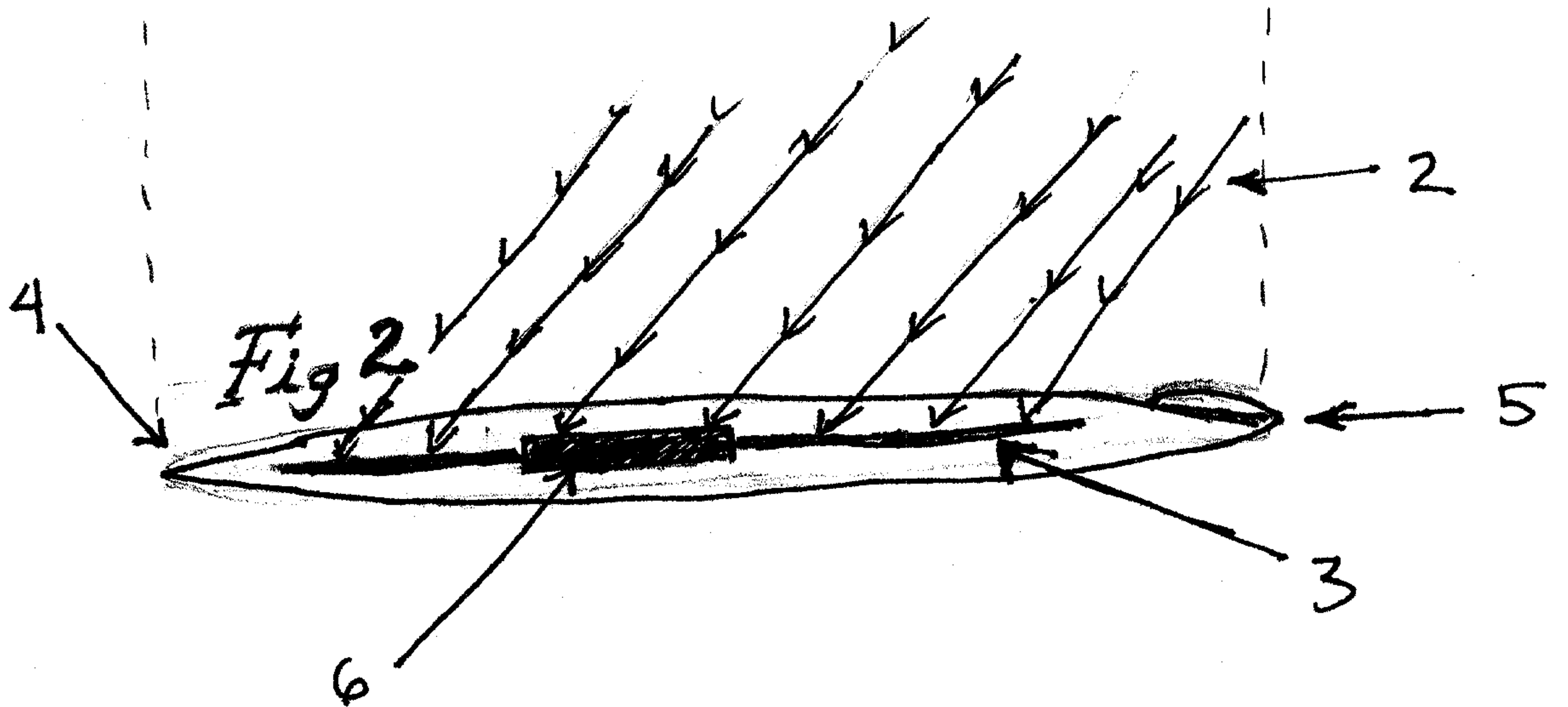
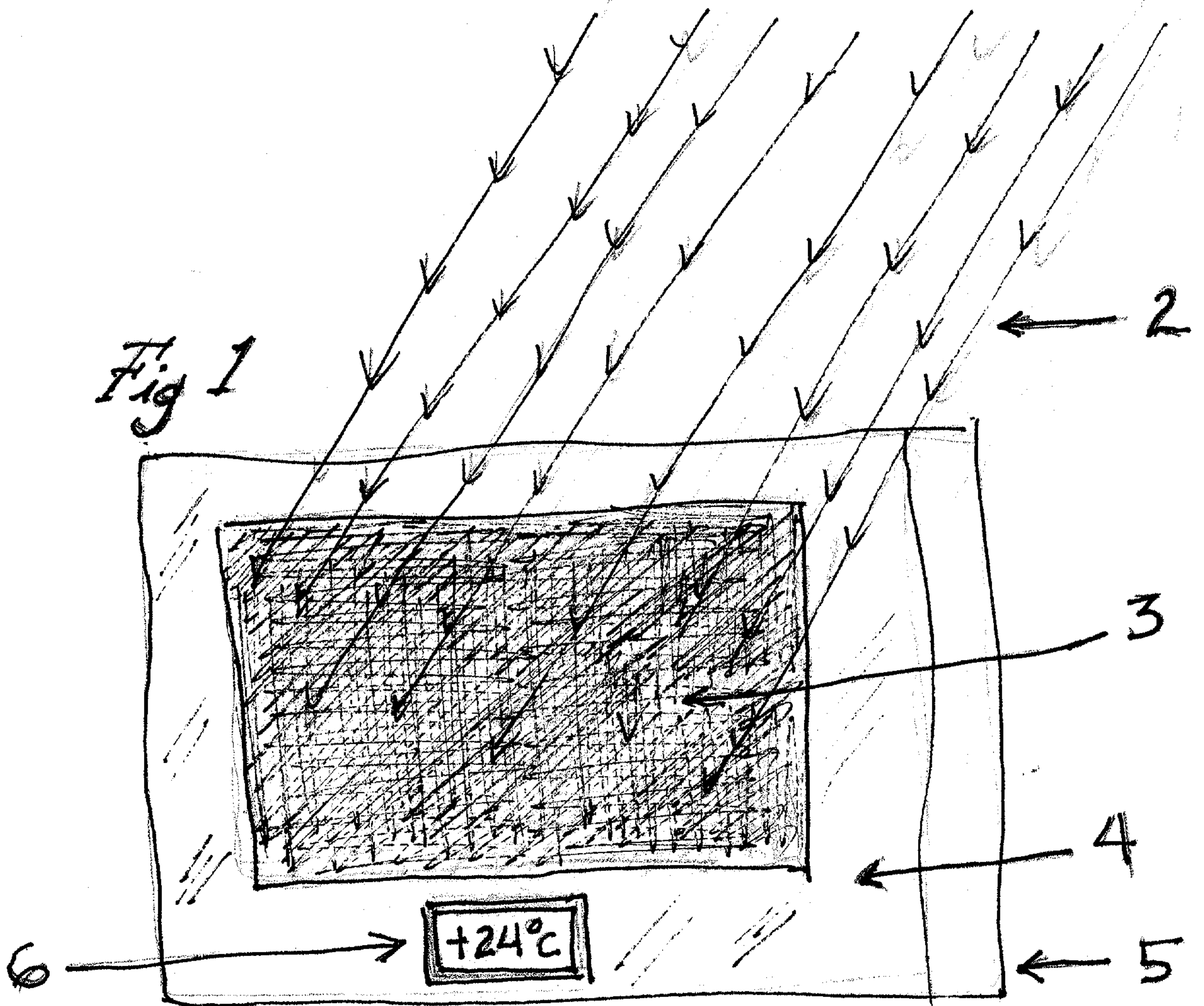
2) DOUBLE LAYERED FLEXIBLE DEVICE WITH A TOP LAYER OF CLEAR FLEXIBLE TRANSPARENT PLASTIC SHEET ATTACHED OVER A FABRIC OF ANY COLOR, THIS DEVICE FUNCTION THE SAME WAY AS IN CLAIM ONE, SOLAR RAYS PASS THROUGH THE TRANSPARENT SURFACE OF THIS PLASTIC THEN COMES INTO CONTACT WITH THE COLORED FABRIC UNDER IT, SOLAR RAYS ARE CONVERTED INTO HEAT THE MOMENT THEY COME INTO CONTACT WITH THE COLOR PRINTED ON THE FABRIC, THE DARKER THE COLOR THE MORE SOLAR RAYS ARE CONVERTED INTO HEAT.

3) CLAIM ONE AND CLAIM TWO ARE SIMILAR DEVICE THAT FUNCTION THE SAME WAY, HEAT PRODUCED IS CONTROLLED BY THE LIGHTNESS OF ITS COLOR, THERE ARE THREE THINGS THAT MAKES THIS INVENTION FUNCTION ONE IS SOLAR, SECOND IS CLEAR PLASTIC, THIRD IS COLOR UNDERNEATH THIS TRANSPARENT PLASTIC.

Application number/ Numéro de demande : # 2377303

Documents of poor quality scanned
(request original documents in File Prep. Section on the 10th floor)

Documents de piètre qualité numérisés
(Pour obtenir les documents originaux, veuillez vous adresser à la Section de préparation
des dossiers, située au 10^e étage)



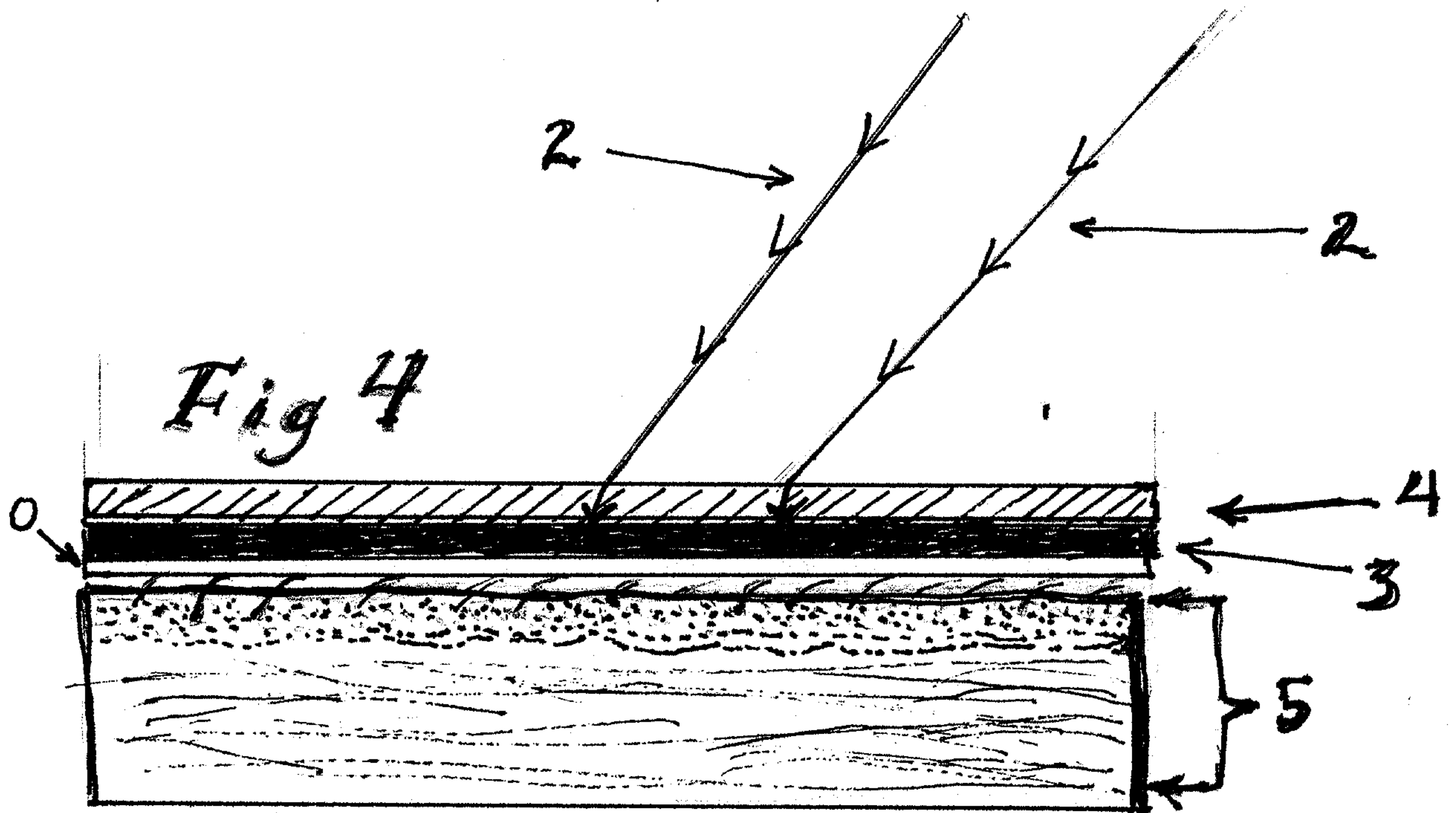
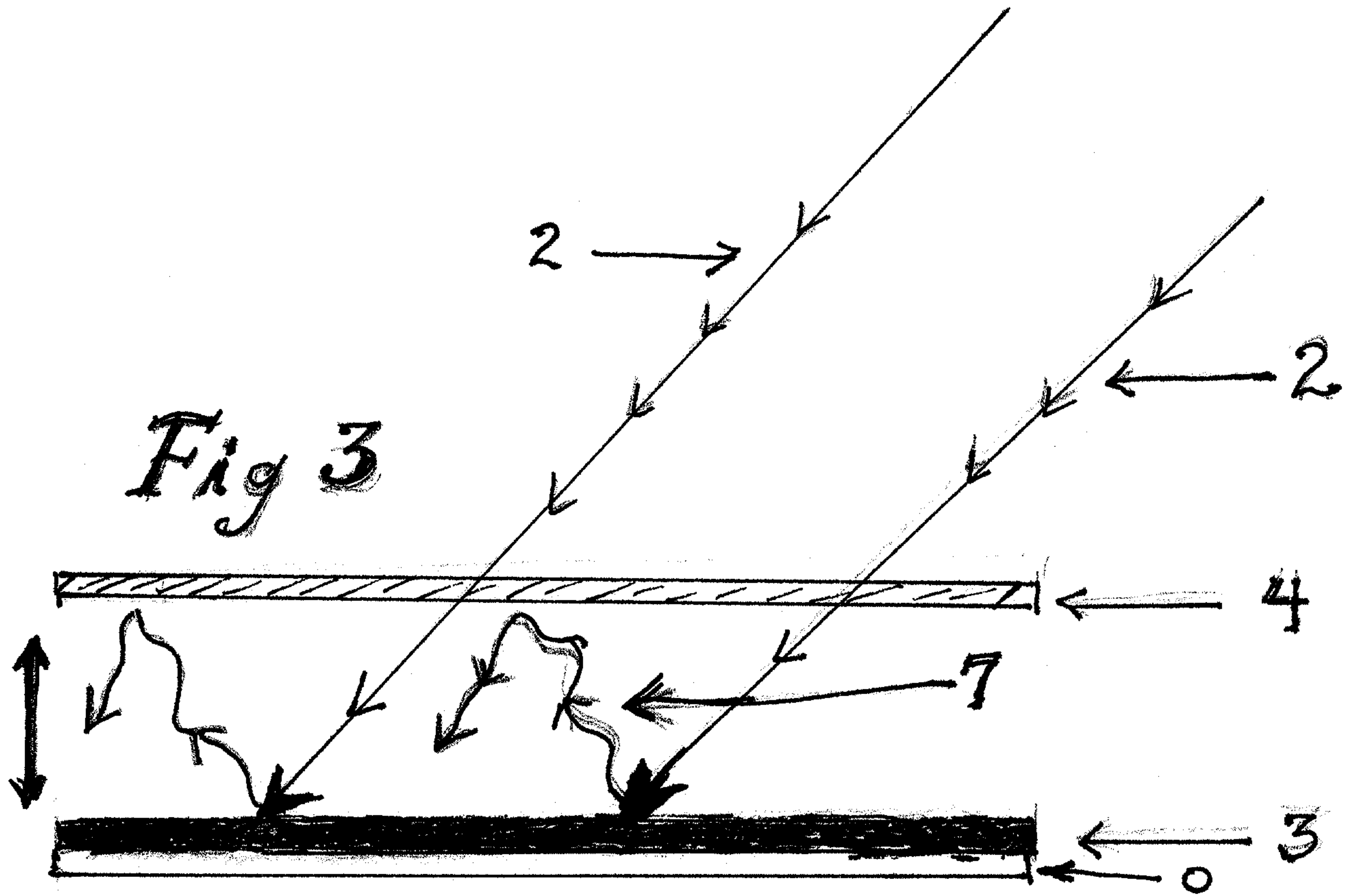


Fig. 5

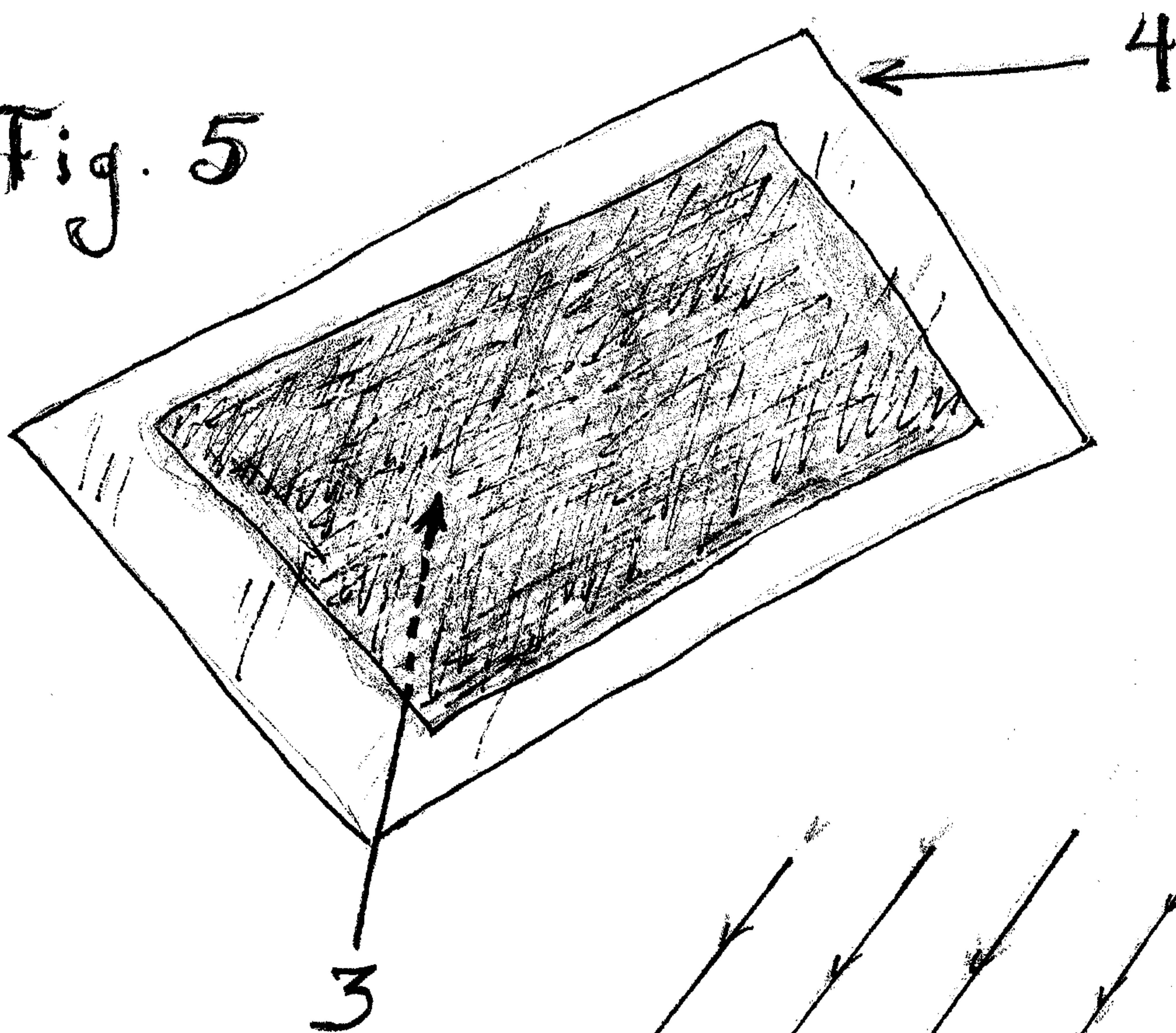


Fig 6

