

THE PATENTS ACT, 1970

Qualifying examination under Section 126 of the Patents Act (as amended and updated)

Paper –II

Drafting and Interpretation of Patent specification and other Documents  
December 2008

Time 2 ½ Hrs

Total pages –

Instruction:- 1. All questions are compulsory.  
2. Marks of each question are indicated at the end of the question.  
3. Relevant section and rule shall be quoted.

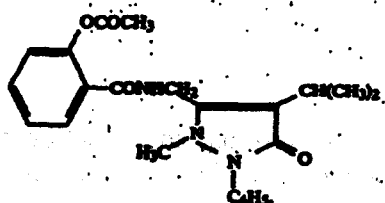
Q.No.1          Attempt any six questions

- (a) You have filed an application with provisional specification on behalf of your client on 15.12.2007, the client is not in a position to provide the total inputs to file a complete specification within the prescribed time but only around 15.2.2009 what action will you take? (10)
- (b) The Director of a Company X had filed an Patent application; after six months of filing Company X was acquired by a Company Y and the Director has approached you to handle the further prosecution of the case. Explain what steps will be taken by you. (10)
- (c) Your client Company A the owner of several patents inadvertently missed to pay the renewal fee for one year from the date of recordal 2.2.08 for one of the patents leading to its cessation what is the course of action you will suggest o your client? (10)
- (d) What are the implications of filing a Form -8. (10)
- (e) Your client has made an invention in the area of atomic energy, advise him about getting a patent in India and the procedure to file his patent application in USA. (10)
- (f) An Indian Company has made an anti-pollution device for flue gases, and wants to file a patent application in India as well as in number of countries abroad. After being convinced by a dependable search, what action can be taken by the company? (10)
- (g) A Patent application relating to an anti hypertensive agent has been published in the journal on 12.11.08, your client is already manufacturing the said drug since 15.6.2006, take action to protect the interest of your client. (10)

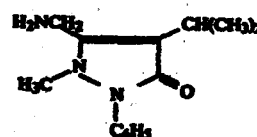
Q.No.2.

State the forms required for filing a Patent application in India and draft a Complete specification along with abstract on the basis of information given by your client as follows:

I am in possession of an invention which relates to aspirin - isopropylantipyrine (N-3'a-propylphenazonyl-2-acetoxybenzamide), a novel compound shown by the formula (I) and a process for producing the same, and its utilization as an analgesic, antipyretic and anti-inflammatory agent.



(I)



(II)

It is already known that Aspirin (acetylsalicylic acid) is being widely used as a relatively safe antipyretic; analgesic and anti-inflammatory agent. It however has the drawback that it has a gastric ulcerogenic activity, with the consequence that it causes nausea and loss of appetite and even induces such gastric disorders as peptic ulcer, hemorrhage of stomach, etc. at times. Especially in the case where aspirin is administered in large doses say for treatment of rheumatic diseases, care must be exercised to guard against gastric disorders ascribable to the ingestion of aspirin. Furthermore, aspirin is hygroscopic, and hence aspirin not only is decomposed by moisture but when it is mixed with other drugs, for example, other antipyretic and analgesic preparations, it becomes moist and discolored at times.

It was found that this novel compound that can be expressed by the foregoing formula (I), while possessing superior analgesic, antipyretic and anti-inflammatory activity, demonstrates marked reduction of such activities as cause gastric disorders that are possessed by aspirin and the side effects of the pyrazolonetype antipyretic and analgetic preparations. Moreover, it is not hygroscopic. It is hence a unique compound possessing good stability.

The aspirin-isopropylantipyrine(AIA) of formula (I) of this invention can be prepared by reacting 1-phenyl-2-methyl-3-aninomethyl-4-isopropylpyrazolone of the formula(II)

with either acetylsalicylic acid or a reactive acid derivative thereof as shown in the accompanying example.

Further the pharmaceutical composition in a form such as exemplified herein or the formula (I) compound itself can be administered in a dose of about 0.02 to about 0.08 g/kg-body/day. The composition of the invention can be administered through various routes. Thus, it may be in an orally administrable form, an injectable form, or a parenterally administrable form (e.g. suppository).

Comparative tests of gastric Ulcerogenic Activity for Aspirin & AIA were carried out on fasted rats and the test compounds were administered orally, the stomachs were removed 7 hrs later and the lengths of the lesions in the glandular portion were measured. Which are given in Table I

**TABLE 1**  
**Gastric Ulcerogenic Activity**  
**(Pylorus-ligated rats)**

Compound	Dose Mg/kg	Length of stomach lesion (cm)
AIA	100	0.11±0.09
Aspirin	100	4.13± 1.24

As apparent little or no injury is caused to the stomach by the compound of this invention.

#### Production of Compound:-

Aspirin (14.4 g, 0.08 molar) was dissolved in 400 ml of chloroform, after which the solution was cooled to 0°C. Dicyclohexylcarbodiimide (18.2 g, 0.088 mole) was then added to the solution followed by stirring the mixture for 30 minutes and thereafter adding 19.6 g (0.08 mole) of 2-methyl-3-aminomethyl-1-phenyl-4-isopropylpyrazolone (II). The mixture was then stirred at room temperature for 24 hours. The precipitate of dicyclohexylurea formed was filtered off, and the solvent was distilled off under reduced pressure.

The residue was dissolved in 150 ml of chloroform, and this solution was added to column packed with 1.8 liters of silica gel and its stage wise elution was performed using chloroform and methanol. The elutes were analyzed by thin-layer chromatography. The eluted fractions exhibiting only the spot at  $R_f = 0.52$  were collected and concentrated under reduced pressure. The concentrate was purified by crystallizing from ethyl acetate to give 25.4 g (yield 80% of N-3a-propylphenazonyl-2-acetox-ybenzamide) (I).

**EXAMPLE 2**  
**Pharmaceutical Compositions**

Tablets

The following ingredients are contained in the amounts indicated in each tablet (500 mg)

AIA	250.0 mg
Cornstarch	120.0 mg
Lactose	122.0 mg
Hydroxypropyl cellulose (binder)	5.0 mg
Talc	1.5 mg
Magnesium stearate	1.0 mg

(40)

OR

I have made an improvement in a windmill more particularly to a windmill constructed to generate electricity to make efficient use of wind irrespective of wind direction or wind velocity.

Wind has been used since ancient times. These days as the resources such as petroleum and coal are gradually becoming exhausted, interest toward wind as alternative energy source is increasing; a windmill is disclosed in the art, which generates electricity using the wind.

Windmills are disclosed in the prior art, however, the conventional windmill is encountered with a problem in that, only when the wind flows at a velocity greater than a predetermined value and the air has a high density, the propeller-shaped rotor can be rotated to convert the wind into electric power. Therefore, in the case that a gentle wind blow, it is impossible to generate electricity using the conventional windmill.

I have worked to provide a windmill which has wind guide plates extending in a radial direction and an upper plate for preventing dispersion of the wind, so that the electricity can be generated irrespective of a wind direction or a wind velocity even when a gentle wind blows.

**BRIEF DESCRIPTION OF THE DRAWINGS.**

FIG.1 is a partially enlarged cross-sectional view illustrating the entire windmill with an embodiment of the invention

FIG. 2 & FIG 3 is a front view illustrating a wind inlet/outlet opening and closing device of the windmill according to the present invention respectively.

As shown in Fig 1 wind blowing in any direction is guided by the wind guide plates 10 to be collected and then introduced into the windmill through the wind inlet 12. Lower ends of the wind guide plates 10 are closed by the charger 23 having substantially a conical sectional shape, and the upper ends of the wind guide plates 10 are

closed by the upper plate 11. The more the wind flows inward toward the wind inlet 12, the more a sectional area through which the wind passes is reduced. Due to the fact, the wind flows through the wind inlet 12 at an increased velocity.

As shown in the partially enlarged upper parts of FIG.1 and in FIG.2 the wind inlet 12 comprises the plurality of cells 121 which are defined by plaiting the plurality of wires 120 in the form of a lattice.

As can be readily seen from FIG. 2 due to the fact that the wind inlet opening and closing device 13 comprising the plurality of scale shaped pieces is pivotally installed in the air inlet 12, one wind inlet opening and closing device 13 through which the wind is introduced into the windmill is opened by the wind flowing through the wind inlet 12, and another wind inlet opening and closing device 13 which is positioned behind the one wind inlet opening and closing device 13 and through which the wind is discharged out of the windmill is closed by the wind flowing through the wind inlet 12.

The wind which is introduced into the windmill through the wind inlet opening and closing device 13 as described above flows through the power generating tunnel 20 and rotates the rotors 21 which are arranged in the power generating tunnel 20. By this fact the generator 22 generates electricity, and the electricity by the generator 22 is charged into the charger 23.

The wind rotating the rotors 21 flows downward through the generating tunnel 20 and then is discharged through the wind outlet 30 which is defined below the wind inlet 12.

As shown in the partially enlarged lower parts of FIG.,1 and in FIG.3 the wind outlet 30 comprises the plurality of cells, 301 which are defined by plating the plurality of wires 300 in the form of a lattice.

Also, as can be readily seen from FIG.3 due to the fact that the wind outlet opening and closing device 31 comprising the plurality of scale-shaped pieces is pivotally installed in the air outlet 30, one wind outlet opening and closing device 31 through which the wind is introduced in to the windmill is closed by the wind flowing through the wind outlet 30, and another wind outlet opening and closing device 31 which is positioned behind the one wind outlet opening and closing device 31 and through which the wind is discharged out of the windmill is opened by the wind flowing through the wind outlet 30.

(40)

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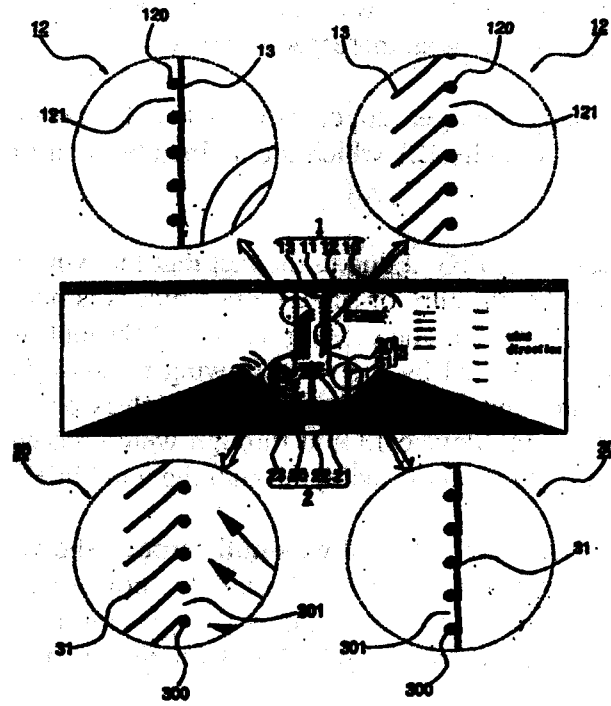


FIG. 1

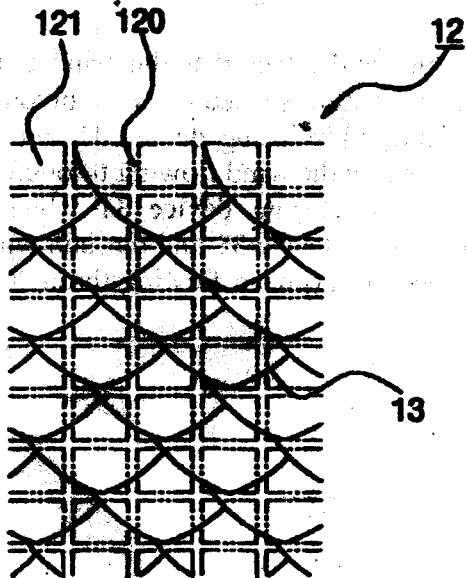


FIG. 2

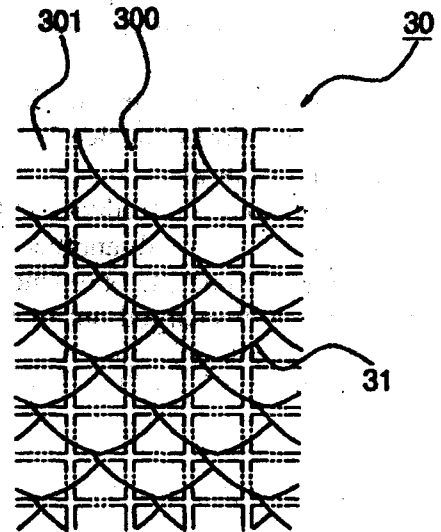


FIG. 3