Final Assignment

INSTRUCTIONS:

Please identify your Section Teacher and include EXAM NUMBERS ONLY on the assignment. The assignment is to be turned in to the Registrars Office by 3 p.m. on Tuesday July 2. You are allowed to refer to any written materials that may help you (e.g., MPEP, course materials, and other reference materials on patent law and practice), except you may NOT conduct ANY patent searching and may NOT refer to any patents. You are NOT allowed to collaborate with or consult with ANYONE including, but not limited to, other students and teaching assistants! If you have any questions regarding the assignment, you may ask your section teacher or Professor Carroll. Any students that fail to comply with the above will be subject to honor code violations.

The following documents should be attached as part of this assignment:

1. *Fact Pattern*
2. *Provisional patent Application (4 pages of specification and 2 pages of drawings)*
3. *Provisional Application Cover Sheet*
4. *Letter from inventors*

FACT PATTERN

You are a first year associate at the Franklin Pierce law firm. The senior partner has given you a provisional patent application that was filed by the firm on a fishing rod alarm. The named inventors in the provisional patent application are Troy Brown, Drew Bledsoe, Adam Vinatieri, and Bob Kraft. According to the filing receipt, the provisional application has a filing date of August 2, 2001 and Serial No. 60/111,111.

To market and sell the fishing rod alarm, the inventors formed a company called Patriot Fishing Gear, Inc., ("PFG") a Massachusetts corporation having a business address of 60 Washington Street, Foxboro, MA 02035. All employees of PFG have signed an employment agreement requiring them to assign their rights to all fishing related inventions to PFG. The invention disclosed in the provisional patent application was demonstrated and sold by PFG at the Boston Fishing Show on August 3, 2000.

Per the attached letter, the firm has received instructions from the client to proceed with preparing and filing a non-provisional application claiming priority on the provisional application Serial No. 60/111,111. The senior partner has given you the following specific instructions:

- Prepare claims for filing with the non-provisional application. Do not incur any additional claim fees.
- Prepare a Declaration for signature by the proper inventors.
- Prepare an Assignment transferring rights to the proper entity and any documents necessary to properly record the Assignment.
- Prepare a Fee Transmittal form.

For the Declaration, Fee Transmittal, and Assignment documents, you can use the PTO forms or any other form that will comply with the applicable laws, rules and MPEP. To the extent that the facts do not provide information needed for the forms, you may leave that information off of the form(s) without adversely affecting your grade. You may provide a brief memo (e.g., one paragraph) to the Senior Partner explaining any issues or concerns with the claims or other documents.

Dear Mr. Pierce:

Please proceed with obtaining the patent on our fishing rod alarm.

As you requested, the contributions made by each of the inventors are discussed below. Troy initially showed us the bite alarm described in the first paragraph of the Background section. Troy owned one of these existing bite alarms and complained that it did not indicate the strength of the bite, but he did not know how to solve this problem. After he told us about this problem, Troy quit working for the company.

Drew and Adam first thought of the general concept of a device at the end of a rod that lights up in response to a bite. They determined that a device similar to the existing bite alarm could send some type of a signal to a device at the end of the rod that lights up.

Drew and Adam brought Troy's old bite alarm to Ty Law and asked Ty to help them build this device because Ty had some knowledge of electronics. Ty came up with the idea of using a signal generator in the bite alarm and an antenna connected to an LED. We did not include Ty as an inventor because the invention originated with Troy, Drew and Adam, and Ty only made his contribution afterwards.

Because I am the president of the company and I am funding the patent application and development of this technology, the other inventors agreed that I should be on the patent. Also, we should add Bill Belichik because he invented the successful marketing campaign for this product.

There are a couple of important features that we did not describe in the provisional application, but we would like to cover them. At the 2000 Boston Fishing Show, we demonstrated and sold the alarm with a specially designed fishing rod having carbon fibers. The conduction of alternating frequency electrical signals appears to be assisted by the helically wound structure of the carbon fibers along the rod. This specially designed rod was Terry Glenn's idea.

Also, when the invention was first shown to Tom Brady a couple of months ago, Tom had the idea of using the

control circuit to illuminate different color LEDs on the bite alarm device depending upon the strength of the bite.

Troy, Drew, Adam, Ty, Terry, Bill and Tom are all employees of Patriot Fishing Gear.

Patriot Fishing Gear has recently entered into a joint venture with New England Fishing Rods, Inc., a Massachusetts Corporation, located in Gloucester, MA. We are very excited about this joint venture. New England Fishing Rods has about 200 employees in New England and it is a wholly owned subsidiary of Fishing Gear International, a Canadian corporation having about 400 employees world-wide. As part of our joint venture agreement, Patriot Fishing Gear is obligated to exclusively license any patent rights to New England Fishing Rods.

The product has been selling great. We have been selling the bite alarm and receiver unit together and separately. New England Fishing Rods is going to manufacture the specially designed fishing rods with the carbon fibers, so we want to make sure they are covered by the patent. The specially designed fishing rods will be sold separately without the receiver unit and also will be sold with the receiver unit built in to the rod.

Best regards,

Bob Kraft
President
Patriot Fishing Gear

Please type a plus sign (+) inside this box → [+]

PTO/SB/16 (8-00)
Approved for use through 10/31/2002. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

INVENTOR(S)		
Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Robert	Kraft	Foxboro, MA
Troy	Brown	Foxboro, MA

☒ *Additional inventors are being named on the 1 separately numbered sheets attached hereto*

TITLE OF THE INVENTION (280 characters max)

FISHING ROD ALARM

CORRESPONDENCE ADDRESS

Direct all correspondence to:

☐ Customer Number [ ] → *Place Customer Number Bar Code Label here*

OR *Type Customer Number here*

☒ Firm or Individual Name	Franklin Pierce				
Address	2 White Street				
Address					
City	Concord	State	NH	ZIP	03301
Country		Telephone		Fax	

ENCLOSED APPLICATION PARTS *(check all that apply)*

☒ Specification *Number of Pages* 4 ☐ CD(s), Number [ ]

☒ Drawing(s) *Number of Sheets* 2 ☐ Other (specify) [ ]

☐ Application Data Sheet. See 37 CFR 1.76

METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT *(check one)*

☒ Applicant claims small entity status. See 37 CFR 1.27.

☐ A check or money order is enclosed to cover the filing fees

FILING FEE AMOUNT ($)

☒ The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: 00-000 — 80.00

☐ Payment by credit card. Form PTO-2038 is attached.

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No.

☐ Yes, the name of the U.S. Government agency and the Government contract number are: ____.

Respectfully submitted,

SIGNATURE _____ Date 8-2-01

TYPED or PRINTED NAME Pat N. Attorney REGISTRATION NO. *(if appropriate)* 11,111

TELEPHONE _____ Docket Number: PATS-001PR

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C., 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

PROVISIONAL APPLICATION COVER SHEET
Additional Page

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Docket Number	PATS-001PR	Type a plus sign (+) inside this box →	+

INVENTOR(S)/APPLICANT(S)		
Given Name (first and middle [if any])	Family or Surname	Residence (City and either State or Foreign Country)
Drew	Bledsoe	Buffalo, NY
Adam	Vinatieri	Foxboro, MA

Number 2 of 2

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

2001
"Express Mail" Label No.
8-2-01
Deposit Date

Docket No. PATS-001PR

FISHING ROD ALARM

TECHNICAL FIELD

[0001] The present invention relates to alarms for fishing rods and more particularly, to visible bite alarms for use with fishing rods.

BACKGROUND INFORMATION

[0002] Electrically-operated bite alarms are available, for connection on to a fishing rod stand. In one example, the prior art bite alarm has a U-shaped opening for receiving the rod, and a narrower, deeper opening for receiving the fishing line, which extends along the rod. The fishing line moves in the nip of a pair of rollers. A bite from a fish pulls on the line and moves the rollers, which in turn triggers an electronic circuit located in the fishing rod stand to produce a bite alarm, usually an audible noise and a visible light. These devices are useful for day or night fishing, but for night fishing they give insufficient information about the nature and timing of the bite. A fisherman would not know the strength of the bite, and would find it difficult to judge when to jerk the fishing rod to secure the hook in the fish.

[0003] For night fishing, lights powered from chemicals are available to clip on the end of the fishing rod remote from the handle, so that the fisherman can follow any motion of the rod, to give him the information he or she needs about the strength and timing of the bite. However, these prior art lights of necessity remain alight all the time, and this is uncomfortable for the fisherman. They are also expensive and have a relatively short life span.

[0004] Attempts to provide electrical illumination at the remote end of the rod have, up until now, failed in all practical senses.

SUMMARY

[0005] The present invention activates a light at the tip of the rod in response to a bite from a fish.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] These and other features and advantages of the present invention will be better understood by reading the following detailed description, taken together with the drawings wherein:

[0007] FIG. 1 is a perspective view of part of a fishing rod resting on a stand incorporating a bite alarm, incorporating embodiments of the inventions;

[0008] FIG. 2A is an end view, and FIG. 2B is a side view, greatly enlarged, of bite alarm apparatus embodying the invention and connected to the end of the rod remote from the handle, as shown in FIG. 1; and

[0009] FIG. 3 is a an enlarged side view of an electric bite alarm embodying the invention, for supporting a fishing rod and line as shown in FIG. 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0010] With reference to FIG. 1, a conventional fishing rod 16 has a handle 15 at one end and a row of eyelets 17 guiding a fishing line 14 along the entire length of the rod to a spool (not shown) coupled to the handle 15. An electric bite alarm 12, described below in greater detail with reference to FIG. 3, rests in a conventional fishing rod stand 11 which supports the rod at a point along its length, with the handle 15 resting on the ground. A receiver unit 13 is clipped on to the far end of the rod 16, to act as a night light giving a clear visual signal to the fisherman when, and only when, there is a bite. The receiver unit 13 is described in greater detail below with reference to FIGS. 2A and 2B.

[0011] The receiver unit 13 has a hollow, generally cylindrical transparent plastic housing 23, which may be formed as a unitary molding. The housing 23 has a part-cylindrical channel-shaped recess 27 whose walls are resiliently deformable, so that the housing can be clipped with a push fit over the narrow end of the fishing rod 16.

[0012] An antenna comprises a metal coil spring 22, for example of tin-copper, typically of 4 or 5 mm diameter and 1-2 cm long, connected at one end to an elongate metal wire 24 extending generally parallel to the axis of the coil 22 and spaced from it. The coil 22 is housed within the housing 23, but the elongate wire 24 is exposed outside the housing, within the channel-shaped recess 27, for abutment against the varnished surface of the rod 16.

[0013] A light-emitting diode 20 is positioned within the coil spring 22 and is connected at one terminal to the coil spring 22 at a point 25 approximately at the middle of the spring. The other terminal is connected to a half-wave rectifying diode 21 whose other terminal is connected to the coil spring 22 at a point 26 near the end to which the elongate wire 24 is connected. Thus the light-emitting diode 20, the rectifying diode 21, and the antenna coil 22 are connected in series. The antenna is, in use, positioned parallel to the fishing rod 16 and close to its side, so that the antenna receives electromagnetic radiation from the rod. The alternating current generated in the antenna powers the light-emitting diode 20, which provides a visual bite alarm signal which can be seen from a distance of at least several yards by the fisherman who may have left the rod unattended. When a fish bites, the end of the fishing rod vibrates in a way that characterizes the strength and timing of the bite, and the fisherman can observe all of this by following the motion of the light-emitting diode 20.

[0014] It is believed that the receiver unit 13 constitutes a tuned circuit; the frequency response of which matches the frequency band of the signal generator 35. A broad bandwidth is preferred. Other embodiments of the receiver unit 13 are also contemplated with the antenna and LED connected in different configurations.

[0015] The electric bite alarm 12, shown in FIG. 3, has a plastic housing 31 and a stem 30 for mounting in the fishing rod stand 11 (FIG. 1). The housing 31 has a U-shaped recess 32 for accommodating the fishing rod 16, and a deeper, narrower recess 33 for accommodating the fishing line 14. The housing has a battery compartment 39 for accommodating standard cells and powering the electrical components. A control circuit (not shown) responds to movements of rollers (not shown) in the nip of which the fishing line 14 runs as it passes through the deeper recess 33. The sensitivity of the roller arrangement and the associated electrical trigger mechanism is adjustable by a potentiometer (not shown). When triggered by the movement of the fishing line 14, the control circuit generates a bite alarm signal and activates an audible alarm at 38, whose volume can be controlled by a potentiometer 34, as well as light-emitting diodes 36 and 37. The bite alarm 12 includes a microwave signal generator 35 within the housing, closely adjacent the fishing rod in use. The bite alarm triggers the activation of the signal generator 35, which transmits the electromagnetic radiation at microwave frequencies into the fishing rod. This transmission continues for as long as there is a bite detected. It is received by the receiver unit 13, as described above.

[0016] We have found that the fishing rod 16 transmits the microwave signal satisfactorily from one end of the rod to the other, acting as a transmitting antenna, to generate the microwave transmission, which is received by the coil spring 22. It is a significant advantage of this arrangement that no wires need to be incorporated in the fishing rod, which usually comes in separate inter-fitting sections: a standard conventional fishing rod will work satisfactorily.

[0017] By triggering the control circuit only when there is a bite, power consumption by the electric bite alarm 12 is very low. In alternative examples, the lights 36 and 37 are omitted, as they are considered redundant, and it would also be possible to omit the audible alarm 38 in order to save further power consumption.

[0018] It will be appreciated that there are many alternative ways of putting these inventions into effect. Frequencies other than microwave frequencies might also work satisfactorily, although we have found that microwave frequencies are particularly convenient. The microwave signal generator 35 is conveniently of the same type as is found in mobile telephones, and it can be provided inexpensively.

[0019] Modifications and substitutions by one of ordinary skill in the art are considered to be within the scope of the present invention.

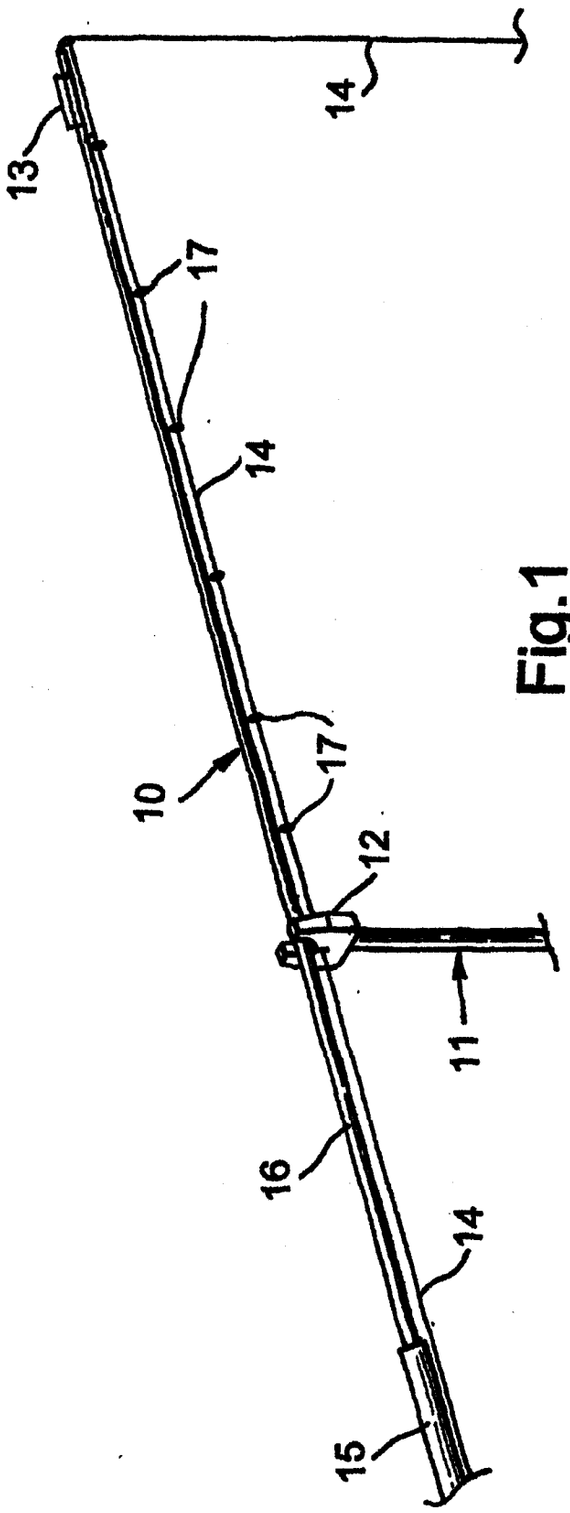


Fig.1

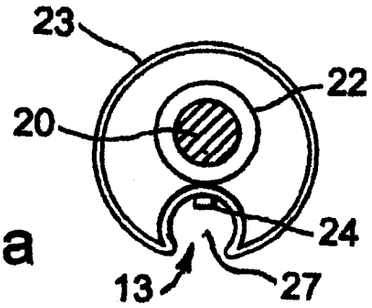


Fig.2a

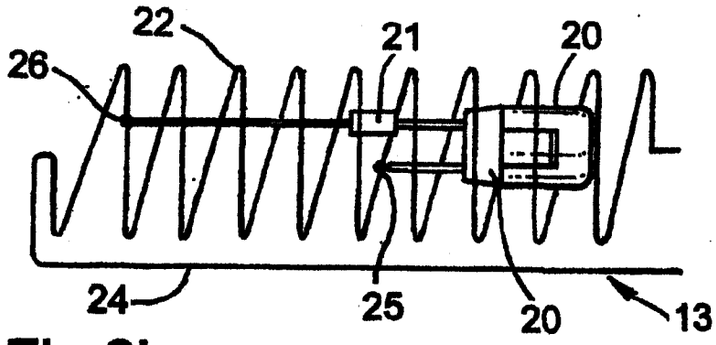


Fig.2b

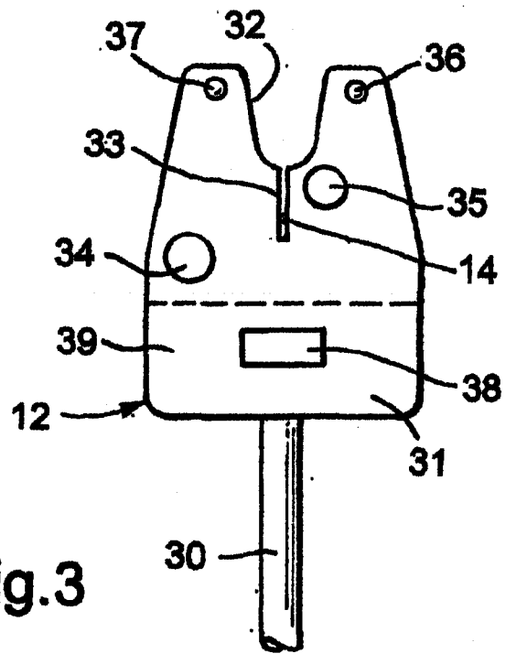


Fig.3