

# **THE SCIENCE OF VALUABLE IP**

## **Drafting Strategies for Patent Applications**

**Sunnyvale Library  
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**Britten Sessions**

**Zilka-Kotab, PC | Silicon Valley Business School  
Lincoln Law School of San Jose**

# Disclaimer



The information presented in this presentation does not constitute legal advice.

# Summary



1. Consider the Right Type of Mentality
2. Application Parts + Strategies

# The Right Type of Mentality

# Scientific Perspectives



- Scientific Method: : 1) collect observations; 2) formulate hypothesis; 3) test hypothesis; 4) analyze; 5) formulate conclusions
- Logical, analytical, **concise**
- Examples
  - Lab Notebook

# Legal Perspectives



- Legal Method: 1) gather facts; 2) look up the law; 3) apply facts to the law; 4) analyze; 5) conclude
- Logical, analytical, **thorough**
- Example
  - Litigation Brief

# Differences in Perspective



- **End goal is different**
  - Inventor: focus on make whatever is found or known PUBLIC to the world
  - Lawyer: focus on best interest of his/her client; protect the inventor's discovery BEFORE it is made public if possible
- **Short terms are different**
  - Inventor: wants to get back to research
  - Lawyer: wants to get as much information as possible

# Litigation Perspectives



- An effective lawyer will draft a patent application in view of litigation perspectives
- For example:
  - Have very clear definitions
  - Provide many clear examples and embodiments
  - Clear claim differentiation or alternative claim sets



# Application Parts + Strategies

# Summary



- **Priority and Background**
- **Summary of the Invention**
- **Brief Description of the Drawings**
- **Detailed Description**
- **Claims**

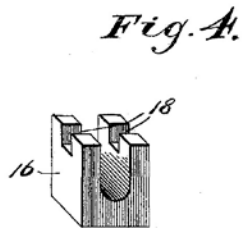
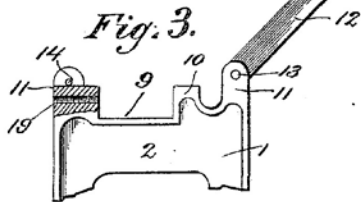
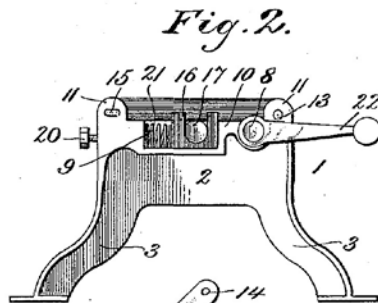
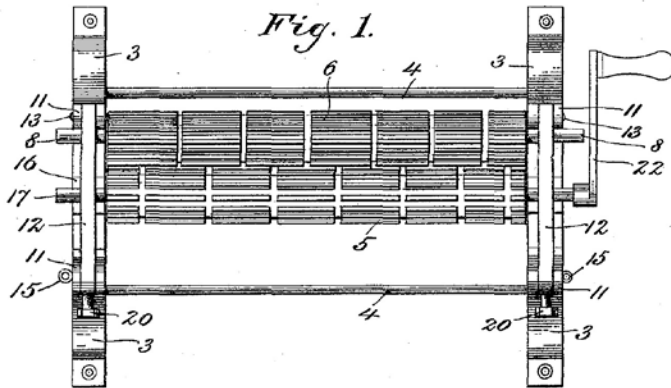
# UNITED STATES PATENT OFFICE.

JAMES SCOTT MILNE AND ABRAM L. MOTT, OF DUBOIS, PENNSYLVANIA.

## MEAT-TENDERER.

SPECIFICATION forming part of Letters Patent No. 611,789, dated October 4, 1898.

Application filed June 24, 1897. Serial No. 642,110. (No model.)



To all whom it may concern:

Be it known that we, JAMES SCOTT MILNE and ABRAM L. MOTT, citizens of the United States, residing at Dubois, in the county of Clearfield and State of Pennsylvania, have invented certain new and useful Improvements in Meat-Tenderers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in meat-tenderers of that class employing toothed or otherwise marred adjacently-mounted and coacting rolls; and the objects we have in view are to produce a machine of neat appearance, of simple and cheap construction, which is thoroughly adapted for performing the operation of rendering steak and other meats subjected to its operation tender and eatable without undue marring or maceration, and, furthermore, to construct the machine in such manner as to adapt it for ready cleaning and removal of the rolls when desired for such or any other purpose and to permit of the passage between the rolls of bones occurring in the meat without danger of causing breakage or other injury to the machine.

Various other objects and advantages of our invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a top plan view of a meat-tenderer embodying our invention. Fig. 2 is an end elevation of the same. Fig. 3 is a detail of one of the side frames, the locking-bar being swung upward to its open position and the boxing and roll-journals removed. Fig. 4 is a detail of the movable or adjustable boxing.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing our invention we employ a pair of cast-metal frames or sides 1, the same comprising the transverse portions 2 and the compoundly-curved supporting-legs 3, which at their lower ends merge into suitable feet having screw-holes through which screws may be passed for screwing or bolting the machine on a table or other base provided for the purpose. The frames or sides are, for the pur-

pose of lightness and design, made T shape in cross-section, or, in other words, their outer edges have formed thereon a flange. The two frames are connected at opposite sides of their centers with parallel tie-rods 4, the same combining with said frames to produce a perfectly rigid structure or support for the meat-tendering rolls 5 and 6, hereinafter described.

Each frame or side 1 is provided between its opposite edges with a recess forming a depressed bearing 7 for the accommodation of the extended journal 8 of the tendering-roll 6, which, as will be seen, is journaled in a stationary manner. Each frame 1 is further provided with an angular recess or depression 9 at the opposite side of its center, such depression or recess being in line with the bearing 7. Between these recesses or bearings the frames are cut away on their upper sides, producing an intermediate rest 10, which is elevated above the recess 9.

The formation described produces at each end of each frame an upward-projecting standard 11, the same being above the plane of the bearings 7 and recesses 9, and also above the rest 10. These standards are longitudinally recessed or bifurcated to points on about a level with the upper ends of the rests 10, and the standards of each side piece or frame 1 receive within their bifurcations a horizontal locking-bar 12. The rear ends of the locking-bars are pivoted, as at 13, to the bifurcations of the rear standards, while the front ends of said locking-bars are perforated transversely to agree with similar perforations 14, with which the bifurcations of the front standards are provided. Within the perforations thus produced split or spring rests 15 are located in a removable manner, whereby, as will be obvious, the front or free ends of the locking-bars may be locked in position and against pivotal movement, or said bars may be removed by being swung upward and to the rear upon their pivots 13 subsequent to a removal of said pins. When lowered, each locking-bar, it will be seen, will have three points of support upon its frame—that is, the two standards and the intermediate rest 10—so that when locked by the pins these bars become substantially rigid.

In each of the recesses or depressions 9 is located a U-shaped movable box 16, the re-

Witnesses  
*C. F. Duwall*  
*O. P. Danna*

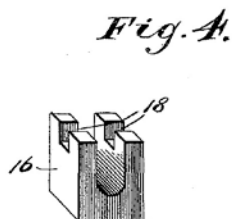
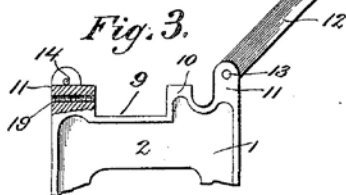
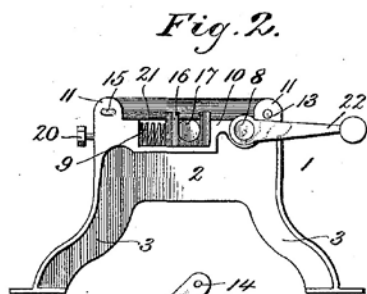
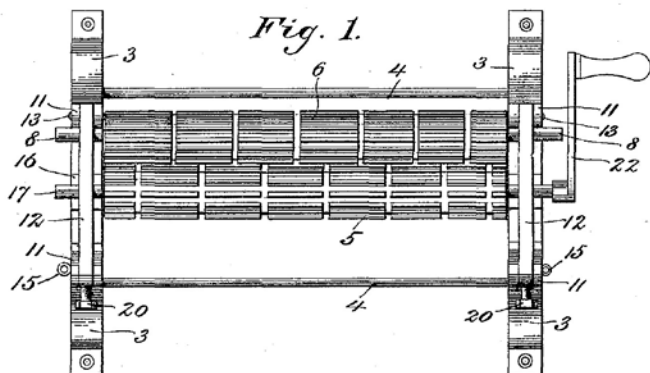
Inventors:  
*Jas. S. Milne & Abram L. Mott.*  
 By *M. Duwall* Attorney

(Application filed June 24, 1897.)

(No Model.)

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611,789



cess of said box receiving and forming the bearing for the journal 17 of the tendering-roll 5. The opposite sides of the box 16 project upward above the rest 10 and in line with the locking-bar 12, at which point each of said boxes is longitudinally recessed, as at 18, to receive and embrace the lower edge of the locking-bar. By this it will be seen that not only are the journals of the stationary roll locked in their bearings 7, but the journals 17 of the movable roll are locked in their bearings and the bearing-boxes themselves are in turn locked against lateral movement, yet free to move in a longitudinal manner. The front standards are bored and threaded, as indicated at 19, and receive adjusting-screws 20, whose inner ends extend into the recesses 9, so as to limit the spread of the rolls and also to serve as a means for adjusting coil-springs 21, seated in the recesses 9 and interposed between the rear faces of the standards 11 and the adjacent faces of the movable bearing-boxes 16.

The surfaces of the tendering-rolls 5 and 6 may be given any desired configuration, and we do not limit our invention in this respect. In the present instance the rolls are grooved, both longitudinally and annularly, so as to produce a series of teeth which intermesh so that both rolls move in unison, the one driving the other. The annular grooves of one roll are located out of line with or between those of the adjacent or companion roll, so that the resulting teeth occur in "break-joint fashion." In this character of roll—that is, where they are toothed—the one will, as before stated, operate the other; but where the rolls are not toothed, so as to intermesh, we may apply to the adjacent ends of the journals of the two rolls intermeshing gears. Such, however, is not necessary in the form of rolls herein shown, and for the purpose of economy we prefer not to use them. To the extended journal of the front roll we apply the power through the medium, in this instance, of an ordinary hand-crank 22. Any other means may be employed for applying the power, and, as shown in Fig. 2, it may be applied to the rear shaft.

Having described our invention, what we claim is—

1. In a meat-tenderer, the combination with opposite sides or frames having their upper

edges between their ends provided with front angular recesses and rear bearings, and at their ends beyond the recesses and bearings, provided with vertical standards, that portion of each frame between the bearing and recess forming a horizontal rest, of a journal-box mounted for sliding in each of the recesses, springs interposed between the same and the adjacent standards for yieldingly pressing said journal-boxes to the rear, front and rear tendering-rolls having their journals mounted for revolution in the bearings of the frames and in the journal-boxes, means for rotating the rolls in unison, locking-bars pivoted near their ends to two of the standards and adapted to close over and upon the horizontal rests and retain the journals in the boxes and the bearings, and means for temporarily securing in a removable manner the free ends of said locking-bars to the opposite standards.

2. In a meat-tenderer, the combination with the opposite side frames comprising opposite legs, with terminating feet and upper horizontal portions, each of said side frames being provided with the rear bearings, 7, the front recesses, 9, the intermediate rest, 10, and the opposite, longitudinally-bifurcated standards, 11, of the U-shaped journal-boxes, 16, bifurcated in line with the standards, the front and rear rolls adapted to move in unison and having their journals mounted in the recesses, 7, and boxes, 16, the locking-bars pivoted within the bifurcations of the rear standards, adapted when lowered to bear upon the rests at their free ends temporarily secured within the bifurcations of the front standards and at intermediate points received by the bifurcations of the journal-boxes whereby they form guides, as well as retainers, for the same, extraneous fastening devices for securing the free ends of the locking-bars in position, adjusting-screws passed through the front standards and taking into the recesses, 9, and springs in said recesses bearing upon the journal-boxes.

In testimony whereof we affix our signatures in presence of two witnesses.

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By M. Duvall Attorney.



# Priority



- US4685151 (granted 8/11/87)
- Priority:

## United States Patent [19]

Kincheloe

[54] MOTORCYCLE SAFETY APPAREL

[76] Inventor: Dan Kincheloe, 420 Monterey La.,  
Apt. 3-D, San Clemente, Calif. 92672

[21] Appl. No.: 717,071

[22] Filed: Mar. 28, 1985

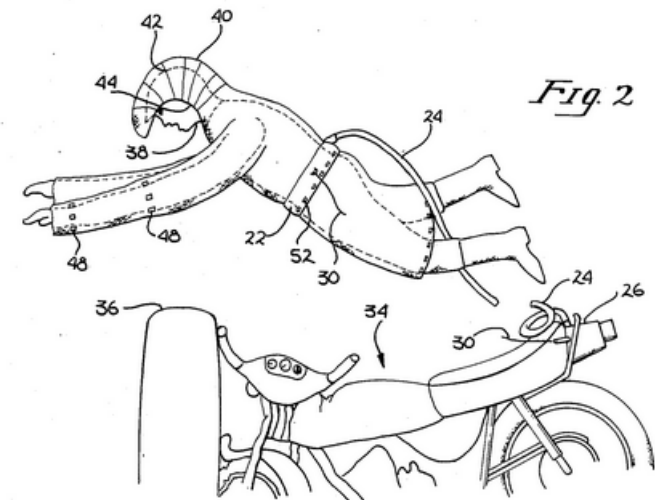
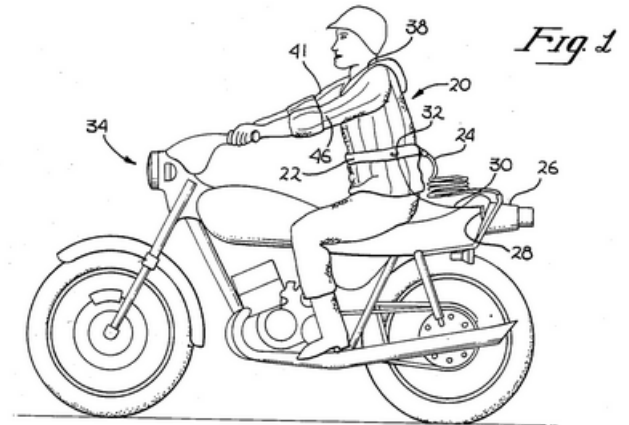
### Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 543,415, Oct. 19, 1983,  
abandoned.

## MOTORCYCLE SAFETY APPAREL

This is a continuation-in-part of application Ser. No. 543,415, filed Oct. 19, 1983. now abandoned

## BACKGROUND OF THE INVENTION



# Priority Strategies



- Is it better to claim as far back as possible?
  - Consider patent term.
  - Consider litigation patent family complexities – what benefit are you actually getting?
- Need to “incorporate by reference”
- Combine multiple applications into one (e.g. via a CIP)

# Field and Background



## BACKGROUND OF THE INVENTION

### 1. Field of the Invention.

The present invention relates to the field of protective apparel for motorcycle riders and the like.

### 2. Prior Art.

It is well known that the survivability of a motorcycle accident, particularly without serious injury, depends strongly on the type and amount of protective clothing worn by the rider. By way of example, a person in ordinary street clothes may well sustain fatal injuries in an accident in which a person simply wearing a helmet would not. Other types of protective clothing which is used to any substantial extent includes boots, heavy clothes such as a leather jacket and perhaps leather pants, and heavy gloves. This type of protective gear has its limitations however, as it tends to be hot, movement restricting and confining, and inconvenient because of the time and effort required to "suit up" from ordinary street clothes. Also while such clothing may be quite protective against abrasion, the impact protection provided thereby is relatively limited as substantial padding is impractical.

# Field and Background Strategies



- **Field:** The present invention generally relates to [X], and has a certain specific application to [X].
  - Keep it brief and general
- **Background**
  - use vague, cursory terms; anything you say can and will be used against you
  - give support or reason for unexpected results, solution to long-standing problem, etc.



# Summary of the Invention



## BRIEF SUMMARY OF THE INVENTION

Motorcycle safety apparel is disclosed which may be made in stylish and unencumbering designs to encourage regular use by motorcycle riders, and the like, which in the event of an impending or actual accident will inflate to provide a protective enclosure for the parts of the body most susceptible to critical or fatal injury. In the motorcycle application, the apparel is coupled through an umbilical cord to a container of compressed or liquified gas, with a much shorter pull cord being coupled between the rider and the valve of the container to rapidly inflate the apparel on separation of the rider from the motorcycle prior to separation of the umbilical cord. In one embodiment, the apparel is in the form of a jacket which includes a pleated hoodlike portion normally folded and resting under the jacket collar, and a pleated lower portion so that on inflation the hood will expand upward and then forward around the top and sides of the head, and the lower portion will inflate and expand downward below the knees. Another embodiment comprises a simple belt or cummerbund-like device, which on inflation will expand upward and downward to protect the torso. Various aspects and features of the invention are disclosed.

# Summary of the Invention Strategies



- A [system, method, apparatus, etc.] are provided for [X].
- Mirror your claim language in a general sense in both your “summary” and “abstract” of the Specification.

# Brief Description of the Drawings



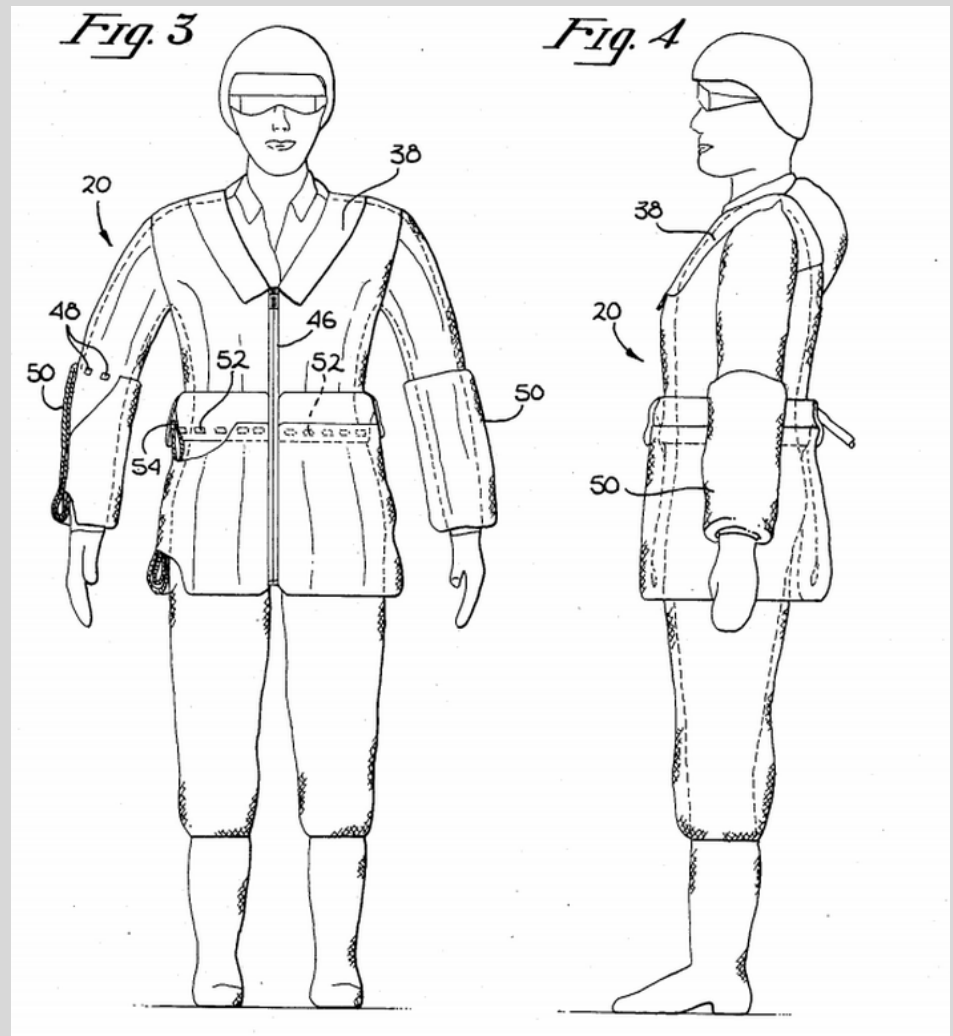
## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a motorcyclist wearing one embodiment of the present invention.

FIG. 2 is a view of the same cyclist with the safety device inflated during an accident.

FIGS. 3 and 4 are front and side views respectively of a person wearing the safety device of FIG. 1 in the uninflated condition.

FIGS. 5 and 6 are front and side views of a person wearing the safety device of FIG. 1 in the inflated condition.



# Brief Description of the Drawings Strategies



- Figure 1 illustrates [X], in accordance with one possible embodiment.
- Don't need to be too detailed – just indicate very concisely what is in the drawing

# Detailed Description



## DETAILED DESCRIPTION OF THE INVENTION

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First referring to FIG. 1, a motorcycle with a rider wearing one embodiment of the present invention may be seen. In this embodiment, the present invention takes the form of a jacket-like garment extending to the normal jacket position around or slightly below the hips, having sleeves of longer than ordinary length, but which may be turned up and retained as shown, and generally otherwise having the appearance of a light ski jacket. The jacket of course may be emblazoned with various decorative insignia and be of selected color or colors to itself serve as an aesthetically pleasing garment and to appear much like a conventional jacket. The structure 22 however is a central manifold-like structure connecting at the back to a coiled flexible and relatively large hose 24 which in turn is connected to a container of pressurized carbon dioxide or other pressurized and/or liquified gas 26 of sufficient quantity and pressure to inflate the jacket in a manner to be described in a very short period of time, and to a suitable pressure to provide a protective air bag enclosure for the most critical portions of the rider's body. The tank 26 may be triggered in various ways, though it is preferred to provide a valve 28 with a valve actuating line 30 coupled to the structure 22 of the jacket by a D ring or

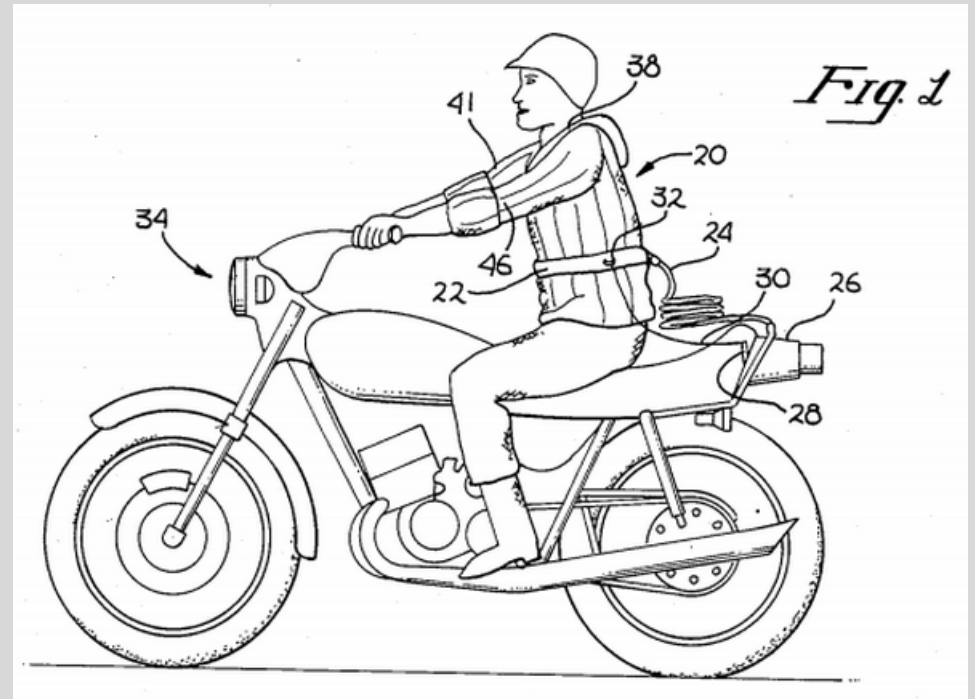
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# Detailed Description Strategies



- **Order**
  - Describe a broad embodiment first
- **Describing a figure**
  - Figure [X] illustrates [X], in accordance with one possible embodiment. Optionally, [X] may be implemented in the context of any of the foregoing figures.
  - software modification: Optionally, [X] may be implemented in the context of any of the foregoing figures, or in any other environment
- **Defining a term**
  - In the context of the present description, [X] refers to [X].

# Specification Considerations



- [if software, describe each major software component. What is the flow of information? What data structures are used?]
- [if physical components, identify resources, hardware – necessary for the patentability of software]
- [if block diagram or flow chart, describe each element of the diagram or flow chart]
- [if physical structure, identify each element of the structure]



# End of Broad Embodiment Section



- **general boilerplate:** The following description of the embodiment(s) is merely exemplary (illustrative) in nature and is in no way intended to limit the invention, its application, or uses. Additionally, the invention may be practiced according to the claims without some or all of the illustrative information



# Additional Embodiments

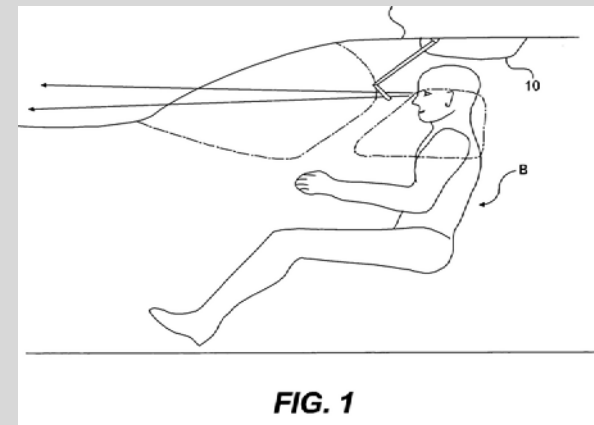


- Describe alternative versions or implementations of the invention
- Think outside of the box of how the invention will be implemented:
  - 10 years from now
  - In different environments (e.g. home, transportation, business, etc.)

# Additional Embodiments Example



- Head up display system
- US7271960 Universal vehicle head up display (HUD) device and method for using the same
  - “In view of all the above, it is a purpose of this invention to provide a self-contained, universally-compatible, low-cost HUD device that can be fitted into any one of a variety of vehicles, including but not limited to general aviation aircraft (both airplanes and helicopters), commercial or passenger aircraft, private powered boats, commercial vessels, passenger ships, trucks, and special-purpose land vehicles.”



# Head up Display



# End of Description Section



- While specific embodiments of the invention have been described, it is understood that the present invention is not intended to be limited only to such embodiments. Additionally, the scope of the preferred embodiment should be defined by the following claims and their equivalents.

# Claims



I claim:

1. A protective system for a motorcyclist comprising: 45  
a source of a pressurized gas;  
a protective device worn around the waist of a person, said protective device being inflatable with pressurized gas to expand and provide protection to the waist region, said protective device further 50  
having upper and lower portions generally circumferentially surrounding said waist region and being folded thereabout in the uninflated state, and inflatable to extend substantially upward and downward when inflated with pressurized gas to protect re- 55  
gions above and below the waist of the person;  
means for coupling said source of pressurized gas to said protective device; and  
means for releasing said pressurized gas into said protective device in the advent of an emergency 60  
situation.
2. The protective system of claim 1 wherein said upper portion is inflatable to extend upward over the head of a person wearing the protective device.
3. The protective system of claim 2 wherein said 65  
upper portion is inflatable to extend forward over the top and substantial part of the sides of the head of a person wearing the protective device.

# Claim Strategy



- 1. [patent class and preamble]  
A table, [transition phrase]  
which comprises:
  - [claim body] a surface;
  - [claim body] one or more support legs;
  - [claim body] one or more attachments for attaching the one or more support legs to the surface, wherein the one or more support legs are mounted in a direction orthogonal to the surface and extend downwardly therefrom.




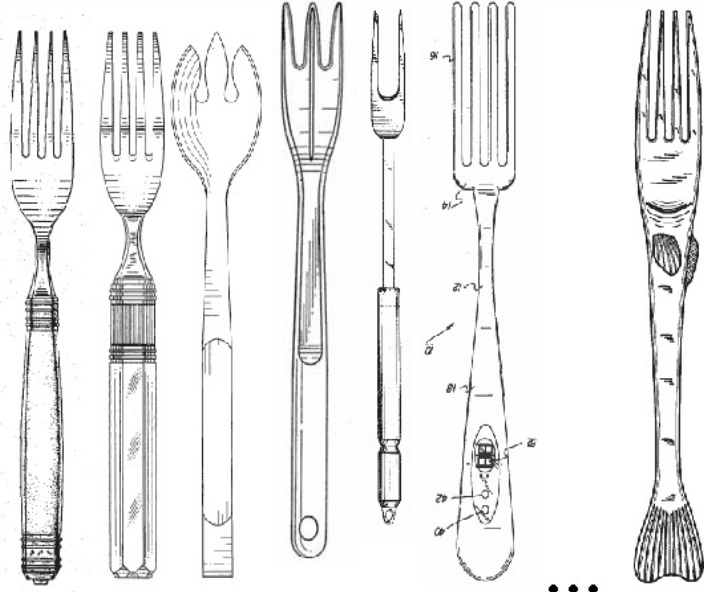
# Claim Strategy



- What are the elements to the invention?
- How are the elements connected?
- What is the function of the element?
- Do the elements move?

# Claim Strategy

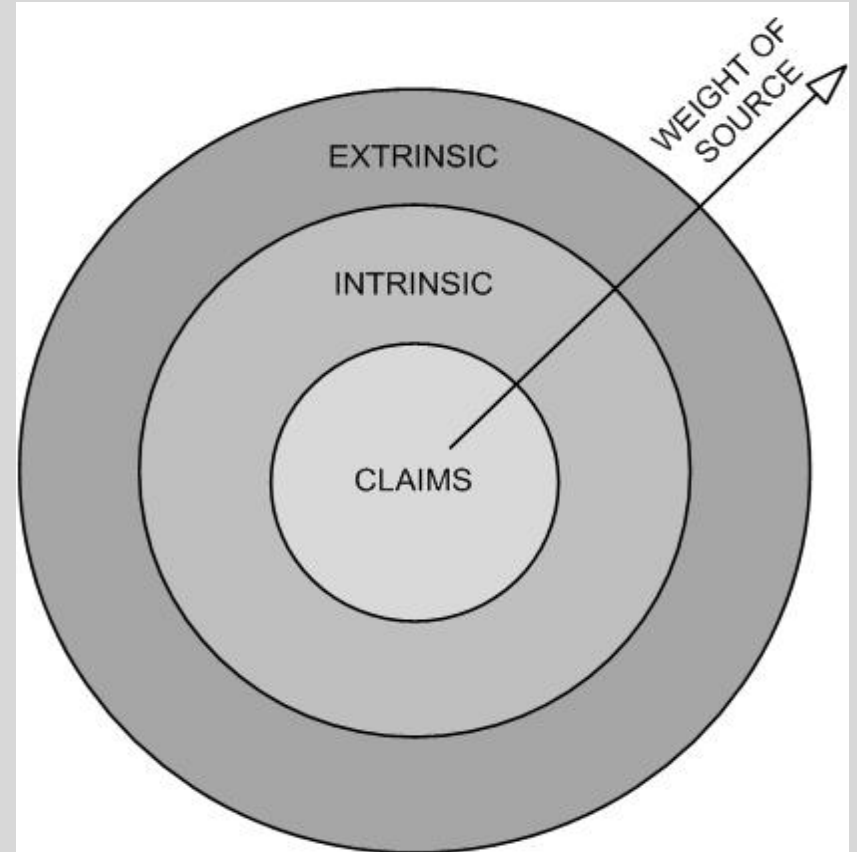
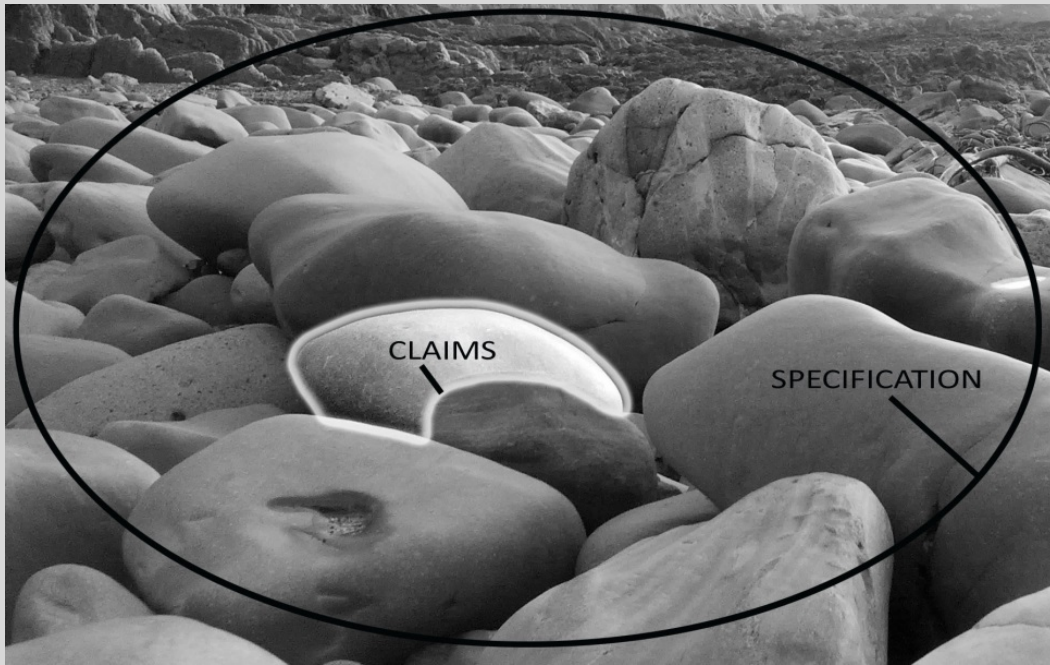


	Central Claiming	Peripheral Claiming
Claiming by Exemplar []		
Claiming by Characteristic	<p>An instrument made out of sterling silver and having a handle attached to four prongs for piercing and carrying food</p>	<p>“An implement [having a handle attached to] two or more prongs,” used “for eating or serving food” or “for raising, carrying, piercing, or digging”<sup>35</sup></p>

Jeanne C. Fromer, “Claiming Intellectual Property,” *The University of Chicago Law Review*, Vol. 76 (2009), available at [http://lawreview.uchicago.edu/sites/lawreview.uchicago.edu/files/uploads/76.2/76\\_2\\_Fromer.pdf](http://lawreview.uchicago.edu/sites/lawreview.uchicago.edu/files/uploads/76.2/76_2_Fromer.pdf).



# Claim Strategies



# Overview



- **Priority and Background:** Brief and to the point
- **Summary of the Invention:** Claim in lay man's terms
- **Brief Description of the Drawings:** Precisely that
- **Detailed Description:** thorough description of the invention; how to use the invention; description of each figure element
- **Claims:** consider having a patent attorney/agent draft them

# Questions?

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