Science or law?

On becoming and being a patent attorney

9th GGL Career Day 2018

15th February 2018 / Dr. Nicole Kott, European Patent Attorney, Bayer Intellectual Property GmbH

Agenda

- About me
- **What is Intellectual Property?**
  - Focus on inventions and patents
- **Becoming a Patent Attorney**
  - European Patent Attorney
  - German Patent Attorney
- **Working as a Patent Attorney**
  - Possible areas of work
  - Law firm vs. Industrial company

About me

About me

Philipps-University, Marburg and Justus Liebig University, Giessen: Student and postgraduate

// Studies of Biology: Virology, Genetics, Parasitology, Animal Physiology

// Diploma thesis and PhD: On the uptake mechanism of Hepatitis B virus

What is Intellectual Property?

What is Intellectual Property?

Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.

Source: www.wipo.int/about-ip/en/

Protection of IP

IP is protected in law by, e.g. patents, trademarks, designs, copyright, which enable people to earn recognition or financial benefit for what they invent or create.

Source: www.wipo.int/about-ip/en/

What is a patent?

A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem.

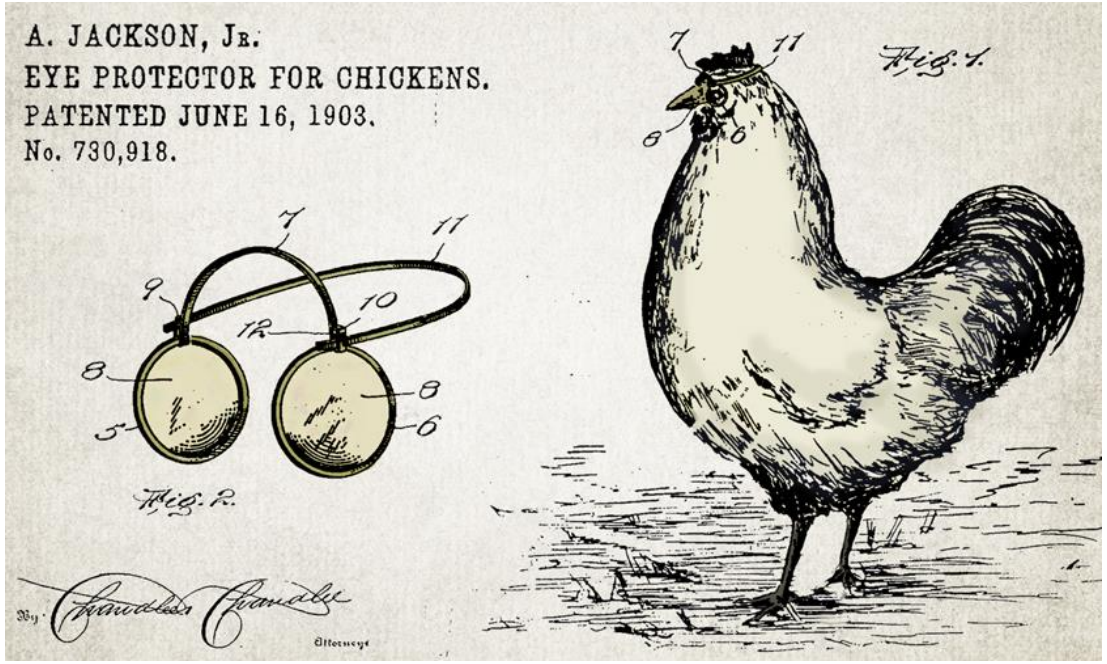
Source: www.wipo.int/about-ip/en/

How to get a patent?

To get a patent, technical information about the invention must be disclosed to the public in a patent application.

Source: www.wipo.int/about-ip/en/

Historical Patents – an example



No more fowl play! Andrew Jackson Jr. patented the “Eye-protector for Chickens” in 1903. The invention was supposed to protect the eyes of chickens from other chickens “that might attempt to peck them”.

No. 730,918. Patented June 16, 1903.

UNITED STATES PATENT OFFICE.

ANDREW JACKSON, JR., OF MUNICH, TENNESSEE.

EYE-PROTECTOR FOR CHICKENS.

SPECIFICATION forming part of Letters Patent No. 730,918, dated June 16, 1903.

Application filed December 10, 1902. Serial No. 134,679. (No model.)

To all whom it may concern:

Be it known that I, ANDREW JACKSON, JR., a citizen of the United States, residing at Munich, in the county of Jackson, State of Tennessee, have invented certain new and useful Improvements in Eye-Protectors for Chickens; and I 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.

This invention relates to eye-protectors, and more particularly to eye-protectors designed for fowls, so that they may be protected from other fowls that might attempt to peck them, a further object of the invention being to provide a construction which may be easily and quickly applied and removed and which will not interfere with the sight of the fowl.

An additional object of the invention is to provide a construction which may be adjusted so that it will fit different-sized fowls.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a view showing the device attached to the head of a chicken. Fig. 2 is a perspective view of the device removed from the head of the chicken.

Referring now to the drawings, the present device comprises the two circular frames 5 and 6 and the U-shaped band or strap 7, the ends of which are secured to the frames, and this band may be of spring material, so that the frames are held yieldably in predetermined relation. In the frames 5 and 6 are secured sheets 8 of glass, mica, or other suitable material, these sheets being concavo-convex, the concaved sides being disposed toward each other, while the convex sides are disposed outwardly. The frames 5 and 6 are somewhat larger than the eyes of the fowl to be protected, and to adjust the frames they are drawn apart and sprung over the head of the chicken, so that one frame encircles each eye. The resiliency of the spring-strap is such that the frames are held close against the sides of the chicken's head, but not with pressure sufficient to give pain, and the inner sides of the frame may be notched, so that there will be a circulation of air between the transparent plates and the eye of the fowl.

At the ends of the U-shaped plate 7 are the loops 9 and 10, in which are engaged the ends of a second U-shaped plate or strap 11, which are held by set-screws 12, so that they may be adjusted as desired. This strap 11 passes around the neck of the fowl and keeps the frames from slipping from place.

It will be understood that in practice modifications of the specific construction shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

An eye-protector for fowls comprising two frames each having a transparent plate therein, an elastic U-shaped strap attached at its ends to the frames respectively and a second strap connected to the first strap at right angles thereto and adjacent to the frames.

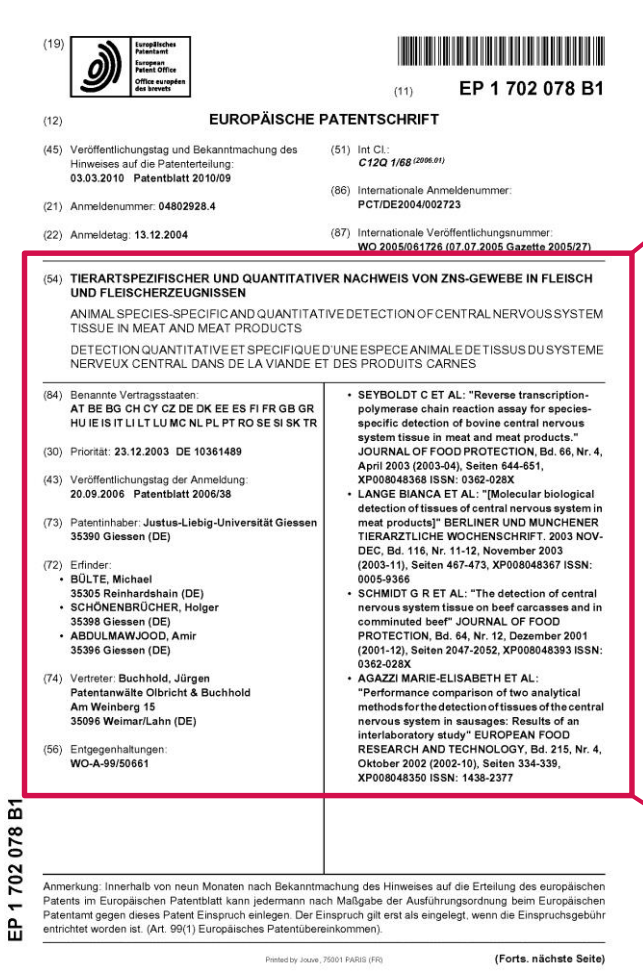
In testimony whereof I affix my signature in presence of two witnesses.

ANDREW JACKSON, JR.

Witnesses:
W. V. BRINGLE,
E. L. SMITH.

Source: www.wipo.int/patents/en/historical_patents.html

Today´s Patents – an (JLU) example



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(54) TIERARTSPEZIFISCHER UND QUANTITATIVER NACHWEIS VON ZNS-GEWEBE IN FLEISCH UND FLEISCHERZEUGNISSEN

ANIMAL SPECIES-SPECIFIC AND QUANTITATIVE DETECTION OF CENTRAL NERVOUS SYSTEM TISSUE IN MEAT AND MEAT PRODUCTS

DETECTION QUANTITATIVE ET SPECIFIQUE D'UNE ESPECE ANIMALE DE TISSUS DU SYSTEME NERVEUX CENTRAL DANS DE LA VIANDE ET DES PRODUITS CARNES

(84) Benannte Vertragsstaaten:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

(30) Priorität: 23.12.2003 DE 10361489

(43) Veröffentlichungstag der Anmeldung:
20.09.2006 Patentblatt 2006/38

(73) Patentinhaber: Justus-Liebig-Universität Giessen
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(56) Entgegenhaltungen:
WO-A-99/50661

- SEYBOLDT C ET AL: "Reverse transcription-polymerase chain reaction assay for species-specific detection of bovine central nervous system tissue in meat and meat products." JOURNAL OF FOOD PROTECTION, Bd. 66, Nr. 4, April 2003 (2003-04), Seiten 644-651, XP008048368 ISSN: 0362-028X
- LANGE BIANCA ET AL: "[Molecular biological detection of tissues of central nervous system in meat products]" BERLINER UND MUNCHENER TIERARZTLICHE WOCHENSCHRIFT. 2003 NOV-DEC, Bd. 116, Nr. 11-12, November 2003 (2003-11), Seiten 467-473, XP008048367 ISSN: 0005-9366
- SCHMIDT G R ET AL: "The detection of central nervous system tissue on beef carcasses and in comminuted beef" JOURNAL OF FOOD PROTECTION, Bd. 64, Nr. 12, Dezember 2001 (2001-12), Seiten 2047-2052, XP008048393 ISSN: 0362-028X
- AGAZZI MARIE-ELISABETH ET AL: "Performance comparison of two analytical methods for the detection of tissues of the central nervous system in sausages: Results of an interlaboratory study" EUROPEAN FOOD RESEARCH AND TECHNOLOGY, Bd. 215, Nr. 4, Oktober 2002 (2002-10), Seiten 334-339, XP008048350 ISSN: 1438-2377

EP 1 702 078 B1

Anmerkung: Innerhalb von neun Monaten nach Bekanntmachung des Hinweises auf die Erteilung des europäischen Patents im Europäischen Patentblatt kann jedermann nach Maßgabe der Ausführungsordnung beim Europäischen Patentamt gegen dieses Patent Einspruch einlegen. Der Einspruch gilt erst als eingelegt, wenn die Einspruchsgebühr entrichtet worden ist. (Art. 99(1) Europäisches Patentübereinkommen).

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(Forts. nächste Seite)

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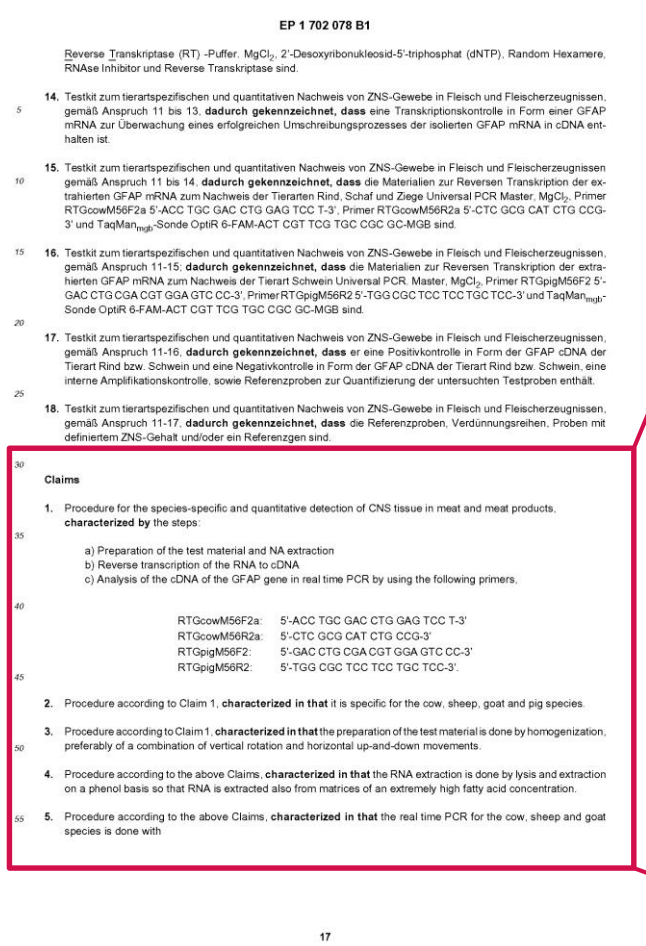

EP 1 702 078 B1

Reverse Transkriptase (RT) -Puffer. $MgCl_2$, 2'-Desoxyribonukleosid-5'-triphosphat (dNTP), Random Hexamere, RNAse Inhibitor und Reverse Transkriptase sind.

14. Testkit zum tierartspezifischen und quantitativen Nachweis von ZNS-Gewebe in Fleisch und Fleischerzeugnissen, gemäß Anspruch 11 bis 13, **dadurch gekennzeichnet, dass** eine Transkriptionskontrolle in Form einer GFAP mRNA zur Überwachung eines erfolgreichen Umschreibungsprozesses der isolierten GFAP mRNA in cDNA enthalten ist.

15. Testkit zum tierartspezifischen und quantitativen Nachweis von ZNS-Gewebe in Fleisch und Fleischerzeugnissen gemäß Anspruch 11 bis 14, **dadurch gekennzeichnet, dass** die Materialien zur Reversen Transkription der extrahierten GFAP mRNA zum Nachweis der Tierarten Rind, Schaf und Ziege Universal PCR Master, $MgCl_2$, Primer RTGcowM56F2a 5'-ACC TGC GAC CTG GAG TCC T-3', Primer RTGcowM56R2a 5'-CTC GCG CAT CTG CCG-3' und $TaqMan_{mgb}$-Sonde OptiR 6-FAM-ACT CGT TCG TGC CGC GC-MGB sind.

16. Testkit zum tierartspezifischen und quantitativen Nachweis von ZNS-Gewebe in Fleisch und Fleischerzeugnissen, gemäß Anspruch 11-15, **dadurch gekennzeichnet, dass** die Materialien zur Reversen Transkription der extrahierten GFAP mRNA zum Nachweis der Tierart Schwein Universal PCR. Master, $MgCl_2$, Primer RTGpigM56F2 5'-GAC CTG CGA CGT GGA GTC CC-3', Primer RTGpigM56R2 5'-TGG CGC TCC TCC TGC TCC-3' und $TaqMan_{mgb}$-Sonde OptiR 6-FAM-ACT CGT TCG TGC CGC GC-MGB sind.

17. Testkit zum tierartspezifischen und quantitativen Nachweis von ZNS-Gewebe in Fleisch und Fleischerzeugnissen, gemäß Anspruch 11-16, **dadurch gekennzeichnet, dass** er eine Positivkontrolle in Form der GFAP cDNA der Tierart Rind bzw. Schwein und eine Negativkontrolle in Form der GFAP cDNA der Tierart Rind bzw. Schwein, eine interne Amplifikationskontrolle, sowie Referenzproben zur Quantifizierung der untersuchten Testproben enthält.

18. Testkit zum tierartspezifischen und quantitativen Nachweis von ZNS-Gewebe in Fleisch und Fleischerzeugnissen, gemäß Anspruch 11-17, **dadurch gekennzeichnet, dass** die Referenzproben, Verdünnungsreihen, Proben mit definiertem ZNS-Gehalt und/oder ein Referenzgen sind.

Claims

1. Procedure for the species-specific and quantitative detection of CNS tissue in meat and meat products, **characterized by** the steps:

   a) Preparation of the test material and NA extraction
   b) Reverse transcription of the RNA to cDNA
   c) Analysis of the cDNA of the GFAP gene in real time PCR by using the following primers,

RTGcowM56F2a:	5'-ACC TGC GAC CTG GAG TCC T-3'
RTGcowM56R2a:	5'-CTC GCG CAT CTG CCG-3'
RTGpigM56F2:	5'-GAC CTG CGA CGT GGA GTC CC-3'
RTGpigM56R2:	5'-TGG CGC TCC TCC TGC TCC-3'.

2. Procedure according to Claim 1, **characterized in that** it is specific for the cow, sheep, goat and pig species.

3. Procedure according to Claim 1, **characterized in that** the preparation of the test material is done by homogenization, preferably of a combination of vertical rotation and horizontal up-and-down movements.

4. Procedure according to the above Claims, **characterized in that** the RNA extraction is done by lysis and extraction on a phenol basis so that RNA is extracted also from matrices of an extremely high fatty acid concentration.

5. Procedure according to the above Claims, **characterized in that** the real time PCR for the cow, sheep and goat species is done with

17

Claims

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RTGcowM56F2a:	5'-ACC TGC GAC CTG GAG TCC T-3'
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RTGpigM56F2:	5'-GAC CTG CGA CGT GGA GTC CC-3'
RTGpigM56R2:	5'-TGG CGC TCC TCC TGC TCC-3'.

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Becoming a Patent Attorney

Becoming an European Patent Attorney

Qualification, professional activity and examination

// Candidates must possess a scientific or technical qualification – e.g. in biology, biochemistry, chemistry, electronics, pharmacology or physics.

Source: http://www.epo.org/learning-events/eqe.html

Becoming a German Patent Attorney

Qualification, professional activity and examination

// Candidates must have completed a university degree in science or technology and have (work) experience in the field of technology.

Source: https://www.dpma.de/english/our_office/about_us/further_duties/patent_attorney_training/index.html

Working as a Patent Attorney

Working as a Patent Attorney

Possible areas of work

// Consulting function: IP-rights, patent strategy, law of employee inventions, etc.

Working as a Patent Attorney

Law firm vs. Industrial company

Law firm

// usually freelance professional

Industrial company

// usually employee

Links

Profession „Patent Attorney“:

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Thank you!

Questions?