

FEBRUARY 2020

The Newsletter of the Institute of Inventors and Innovators

III – The home for inventors. A non-profit organization controlled by inventors, supporting inventors.

III – South Africa Business Award Winner – MEA Markets 2018

<https://www.mea-markets.com/2019-the-institute-of-inventors-and-innovators>

... for Valentine's Day



"He'll take a dozen long-stemmed roses."

For your diary...

- ❖ **Our Eureka!MEET** dates are 12 February; 11 March; 8 April; 13 May; 10 June; 8 July; 12 August; 9 September; 14 October; 11 November ... so set aside the days because attendance is always worthwhile.
- ❖ **PITP – Pitch it to the Panel** – the next date is Saturday **29th February 2020** (then 9th May then 25th July).
- ❖ **PLATINUMGOLD DIGITAL RADIO** www.platinumradio.com is interviewing **III Chairman Ken Hawksworth** on Monday February 10th from 10-10h30. Go online and listen in if you can. If not, we hope to make the podcast available on our website as soon after as we can.

Report back January Eureka!MEET- Protecting Your Intellectual Property: PATENTS

gunterattorneys
patents | trade marks | copyright | designs

Rina Gunter of Gunter Attorneys (est. 2011) is a patent attorney and Metallurgical and Chemical Engineer. She has a slew of business and professional awards and around 25 years of concentrated experience in



the intricate field of IP law ... and all that was obvious when she addressed our **Eureka!MEET** in January. Her talk answered some pressing questions for an engaged and participative audience.

Protecting your ideas, inventions and intellectual property is an important step of the invention process as anyone who has had a good idea will tell you. The words "I have to patent this" trip of the tongue and are more easily said than done – there is a lot to concentrate on when thinking about PATENTS. The system is a complicated one and needs a trusted specialist when you get there.

Let's stop a moment and consider some definitions that may answer a few selected questions and put intellectual property law, specifically patents, into context.

What is IP Law?

Essentially IP law protects the products of the intellect which are capable of commercial exploitation.

Is a PATENT ATTORNEY the same as any other attorney?

No – it takes around 10 years to qualify as a patent attorney, as according to the S A Patents Act (57 of 1978) you need a professional technical qualification as well as a law degree. You also need to pass the Patent Examination Board exam (SAIPL) and must be admitted as an attorney to the High Court of South Africa.

What does Intellectual Property include?

Intellectual property includes: patents which can be registered; designs which can be registered; trademarks; copyright (which cannot be registered except for cinematographic films); domain names; confidential information, know-how and trade secrets (e.g. Coca Cola formula); and other special categories of rights such as plant breeder's rights.

When should I apply for IP protection?

Ask yourself – is the idea **new, inventive** and **original**? Does/will it work? Would people want it, is there a customer for this invention? For how long will it last – is it a passing fad or will it be long-lasting. Can it be adapted to market needs as customer needs may change? If your answers to these questions were yes then it may be worth applying for IP protection. You would need to speak to a patent attorney. In the meantime DO NOT DISCUSS your idea in case you spoil the 'novelty factor' and thereby spoil a possible chance of obtaining a patent.

What is a patent? How long does it last?

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.

To get a patent, technical information about the invention must be disclosed to the public in a patent application. Patent protection means that the invention cannot be commercially made, used, distributed, imported or sold by others without the patent owner's consent.

The protection is granted for a maximum period of 20 years from the filing date of a complete patent application, subject to payment of the prescribed renewal fees.

Is a provisional patent the same as a patent? And what does 'patent pending' mean?

No - a provisional patent application secures an early filing date for the invention, referred to as the 'priority date'. Any public disclosure before that date will irrevocably destroy novelty in, and hence patentability of the invention. A complete patent application must be filed before the provisional application expires, which is within 12 months. Only a patent attorney can prepare and file a complete patent application. Patent pending is used as an alternative term for provisional patent application.

Essentially a provisional patent application creates a priority right in favour of an applicant. Once a complete patent application is filed, the applicant's rights are retrospectively enforceable from the priority date of the provisional patent application. If the provisional patent application is not completed, it lapses after expiry of 12 months, leaving no rights outstanding.

The purpose of a provisional patent application is to afford the applicant an opportunity to develop his invention, pitch the idea, test its commercial viability, refine and improve the invention before submitting the complete patent application. After a complete patent application is filed, the applicant may never again introduce new matter into the text of the complete patent application.

Is a patent the only way of protecting my idea?

No, if your idea falls into an area where a patent is not possible then perhaps you can register your design or obtain a trademark. A patent attorney will help.

Can I get a patent myself or do I have to go through an attorney?

No, only a qualified patent attorney can prepare and file a complete patent application on behalf of a client. You can, however, register a provisional patent through the CIPC here in South Africa, subject to the risks associated with such a self-filing.

Is having a patent worthwhile?

Yes, if the invention is worthwhile and the potential commercial value of sales is worth the costs of obtaining a patent.

How much does a patent cost?

Obtaining a patent is an expensive exercise and there is no set fee because each and every patent application requires individual attention. Costs are influenced by factors such as complexity of the invention and resultant professional time associated with drafting the specification and preparing the drawings, the countries in which an applicant wants to file patent applications, and in certain cases, the identity of the applicant (i.e. individual or company, and whether from a third- or first-world country).

Can everything be patented?

No, there are certain categories of 'invention' which are not eligible for patent protection. These include: discovery (Rooibos tea for example); scientific theory; mathematical method; aesthetic creations such as musical composition or literary works; schemes, rules, methods of conducting business, performing a mental act or playing a game; computer programs and

apps; presentation of information; and treating humans or animals through surgery, therapy or diagnosis practised on the body.

Is a South African patent valid overseas?

Patents have territorial rights. In general, the exclusive rights are only applicable in the country or region in which a patent has been filed and granted, in accordance with the law of that country or region.

Besides coming up with a 'good idea' and inventing something – there is so much to do as an inventor that the list can be daunting. Obviously, the process of getting your product to market, designed, protected, manufactured, distributed and actually on the shelves is a journey only the determined and persevering take. So, when you come across someone who is one of the Piggies who went to market (and didn't stay at home), then you can take off your hat to her, him, or them. Still ... let none of the above put you off, after all, you're an inventor!



The January **Eureka!MEET** was a success in the skillful hands that guided those present through this wide-ranging and complex subject. **Thank you for sharing your expertise so readily with us Rina!**



As advertised in the January Eureka!NEWS.

Don't forget! **Eureka!MEET** – Wednesday 12th February 2020 19h15 – 21h15...ish

Our informative topic is '**Wantrepreneur to Entrepreneur**'

Venue details: 65 Maria Street Fontainebleau [Google maps](#)

Eureka!MEET – Wednesday 11th March 2020 7h15 – 9h15 pm...ish

Pool Pilot[™]

Join us for another engaging and useful presentation!

An Inventor's Tale: a talk about taking products from the idea stage and all the way to market leader.



Are you a pool person? Has your pool cleaner just been otherwise? Does it get stuck in the corners and not finish the job properly?

Be there when Chartered Engineer and Chairman of the III **Ken Hawksworth** tells us about his inventions that he has successfully brought to market. His talk will tell us what the **Pool Pilot** is and does and all about his inventor's journey. He'll also cover extending his idea by innovation and improvement thereby producing Version 2 ... different name and different game! He will include the problems he had with the whole invention process and how he overcame his challenges, adding other interesting information for inventors too... like the pros and cons of exhibiting at trade shows.

THE Eureka!MEETS VENUE HAS CHANGED.

In future we will meet in the **Crawford room in the grounds of St Luke's Anglican Church 18 High Road, cnr Oaklands Road, Orchards, next to Norwood**. Call 072 6643749. From Louis Botha turn into Oaklands Road, cross over The Avenue/Grant road then still in Oaklands, go until the booms in front of you. Turn RIGHT here into High Road and then see main gates on the right. Drive in, veer immediately left to the parking. Walk up a brick path through the gardens to the Meeting room.

Click <https://www.google.com/maps/@-26.1540859,28.0711162,15.25z> for directions

We look forward to seeing you at our meetings, feel free to bring a guest.

Please book as space may be limited.

All sorts of people are inventing
all sorts of things every day.

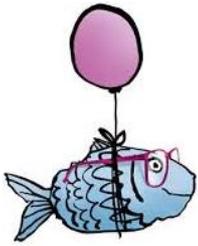
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Go to www.iii.org.za or ask about membership using info@iii.org.za

Inventors are thinking people not so?

Here is a **density riddle** for you to cogitate and ponder. The answer will be given in the March issue of **Eureka!NEWS** so you have around four weeks to consider the question.



You have a rubber balloon with a string attached to it, and a weight attached to the other end of the string. You put just the right amount of air into the balloon such that if you submerge the balloon and weight under water to a depth of 30 feet, the balloon will not rise or sink because its buoyancy force is exactly balanced by gravity. You then pull the balloon and weight down another 30 feet.

If you let the balloon go at this depth will it rise or sink? Assume that the water temperature is the same at both depths.

Business Plan Alert aka Action Plan

- ▶ Don't wait until you have time to write your business plan (BP). Do it now.
- ▶ A BP can be short and concise but should cover everything that shows you have answered all the necessary questions: Who, What, Where, Why, How and When. Don't get bogged down by too much detail. It will never be perfect. Be intuitive.
- ▶ Don't overestimate the importance of your idea/invention. BPs don't sell inventions to investors, they serve 'customers' and summarise business prospects, people and results.
- ▶ Don't write a business plan only when you seek funding; a BP is dynamic, it guides and shows the way forward for your business.
- ▶ Don't be casual about cash flow. Don't think profits – they will look after themselves. Think of cost to market, of sales minus costs and running expenses. Reflect these truthfully in your plan.
- ▶ One size does not fit all. Make sure to tailor your plan to its real business purpose. A plan for seeking funding is different from a plan outlining a marketing strategy or a detailed action plan.
- ▶ Spongy goals and vague expectations are useless. You need specific dates, management responsibilities, budgets, and milestones.

- ▶ Your business is not about you, what you would like to do or what you want from it. It's about your customers and the problems you solve for them. Your BP should reflect this thinking. Review, adapt, and 'work' your BP at least twice a year. It's a dynamic document.
- ▶ As with everything important, there's much more. Research Business Plans, understand their importance and uses and then put them to work for you. Let your BP become a respected 'silent' partner. Never had one even though you are already in business? Doesn't matter, do one now.

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MAKE LIFE EASIER



Architect Ma Yansong combines the shapes of nature, of mountains and clouds in various and very different ways in his building designs – and his word is spreading – Toronto, Los Angeles and of course China. 'Thinking out of the Box' takes on new meaning here and surely has some lessons for inventors. https://www.ted.com/talks/ma_yansong_urban_architecture_inspired_by_mountains_clouds_and_volcanoes?utm_source=newsletter_daily&utm_campaign=daily&utm_medium=email&utm_content=button_2019-11-07

What are smart phones made of? TED Talk by Kim Preshoff October 2018

As of 2018, there are around 2.5 billion smartphone users in the world. If we broke open all their newest phones, which are just a fraction of the total that've been built, and split them into their component parts, that would produce around 85,000 kilograms of gold, 875,000 of silver, and 40 million kilograms of copper. How did this precious cache get into our phones, and can we reclaim it?



Gold, silver, and copper are actually just a few of the 70 or so chemical elements that make up the average smartphone. These can be divided into different groups, two of the most critical being rare earth elements and precious metals.

Rare earths are a selection of 17 elements that are actually common in Earth's crust and are found in many areas across the world in low concentrations. These elements have a huge range of magnetic, phosphorescent, and conductive properties that make them crucial to modern technologies. In fact, of the 17 types of rare earth metals, phones and other electronics may contain up to 16. In smartphones, these create the screen and colour display, aid conductivity, and produce the signature vibrations, amongst other things and yet, crucial as they are, extracting these elements from the earth is linked to some disturbing environmental impacts.

Rare earth elements can often be found, but in many areas, it's not economically feasible to extract them due to low concentrations. Much of the time, extracting them requires a method called **open pit mining** that exposes vast areas of land. This form of mining destroys huge swaths of natural habitats, and causes air and water pollution, threatening the health of nearby communities.

Another group of ingredients in smartphones comes with similar environmental risks. These are metals such as copper, silver, palladium, aluminium, and platinum, tungsten, tin, lead, and gold. We also mine magnesium, lithium, silica, and potassium to make phones, and all of it is associated with vast habitat destruction, as well as air and water pollution. Mining comes with worrying social problems, too, like large-scale human and animal displacement to make way for industrial operations, and frequently, poor working conditions for labourers.

Lastly, phone production also requires petroleum, one of the main drivers of climate change. That entwines our smartphones inextricably with this growing planetary conundrum. And, what's more, the ingredients we mine to make our phones aren't infinite. **One day, they'll simply run out**, and we haven't yet discovered effective replacements for some. Despite this, the number of smartphones is on a steady increase; by 2019 it's predicted that there'll be close to 3 billion in use.

This means that reclaiming the bounty within our phones is swiftly becoming a necessity. So, if you have an old phone, you might want to consider your options before throwing it away. To minimize waste, you could donate it to a charity for reuse, take it to an e-waste recycling facility, or look for a company that refurbishes old models.

However, **even recycling companies need our scrutiny**. Just as the production of smartphones comes with social and environmental problems, dismantling them does too. E-waste is sometimes intentionally exported to countries where labour is cheap but working conditions are poor. Vast workforces, often made up of women and children, may be underpaid, lack the training to safely disassemble phones, and be exposed to elements like lead and mercury, which can permanently damage their nervous systems. Phone waste can also end up in huge dump sites, leaching toxic chemicals into the soil and water, mirroring the problems of the mines where the elements originated.



A phone is much more than it appears to be on the surface. It's an assemblage of elements from multiple countries, linked to impacts that are unfolding on a global scale. So, **until someone invents** a completely sustainable smartphone, we'll need to come to terms with how this technology affects widespread places and people.



PITTP – Pitch it to the Panel – is a confidential and professional service for members
The next PITTP is on Saturday 29th February 2020

Whether or not you think your idea is one of staggering genius take note of what PITTP can do for you!

At this get together, you'll have a chance to speak to a knowledgeable group of professionals, specialists,

entrepreneurs and inventors. Furthermore, **confidentiality is assured** as everyone present signs a Non-Disclosure Agreement which means that your idea and invention is treated with the confidentiality it requires at whatever stage you are at on your inventor's journey.

Get guidance, assistance and invaluable advice to get you to your next step.

Members can book a **PITTP** session by going to the website and booking online – www.iii.org.za

Dear Pitch-it™ to the Panel team,

I wish to thank you sincerely. Your inputs were very constructive, innovative, solving problems and highlighting issues of concern. It was honest and candid.

In particular, I value the mix of your combined experience and expertise all around one table.

This was superb and just what I needed.

I hope to pitch again soon.

Thank you so much.

Kind regards,
Hennie Stoffberg
PITTP November 2019

In case you missed it ...



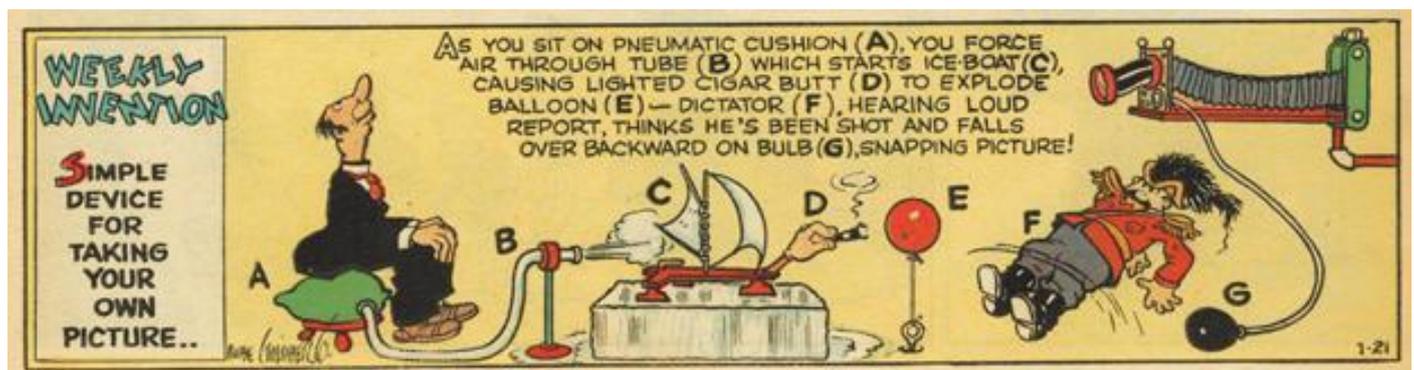
Perhaps you saw that in July 2019, bees were declared the most important living beings on the planet by the Earthwatch Institute. The Science Times www.scienceimes.com notes that 70% of the world's agriculture depends exclusively on bees!

Long ago Albert Einstein stated that "if the bees disappear, humans would have four years to live." One wonders how a person works out such a statistic but still.

Sadly, these essential little creatures have joined the long list of endangered species for reasons as wide-ranging as the use of toxic pesticides, rampant deforestation, the lack of flowering plants and climate change.

N.B. On the basis of the provisions in the Poison Act in South Africa, it is illegal to kill bees and pest control companies offering to exterminate unwanted swarms can be prosecuted. The Agricultural Research Council can assist if you need them. Hopefully and forever you don't.

● **Rube Goldberg** (1883-1970) was an American cartoonist, sculptor, author, engineer, and inventor. He is best known for his popular cartoons depicting complicated gadgets performing simple tasks in indirect and convoluted ways...this one below is a pre-cursor to the selfie. Or maybe not!



**The next Eureka!NEWS will be out by 5th March ... look out for it.
Greetings to you all.**

The Institute of Inventors and Innovators - Inventors working on behalf of Inventors

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**The III are members of IFIA –
the International Federation of Inventors Associations.**

The international community is vibrant and very active when it comes to events and expos with the twin themes of INVENTION and INNOVATION.

If you go to <https://www.ifia.com/ifia-event-schedule/#> you will be able to see what events are scheduled for 2020 ... and maybe you will find yourself travelling for some reason?

If you do get to attend any of these shows please tell us about it, we would love to hear about your experiences and impressions.

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Got something on your mind? Let us know. Email info@iii.org.za