INVENTION:
Rotary handle for fire extinguishers

Hanger and swivel handle for fire extinguishers
Hanger and swivel handle for fire extinguishers is an innovative product that was not previously available on the market. The presented invention to a large extent facilitates the cyclical inspection and maintenance of extinguishers (about 1 time per month), which is a result of the law.

Moreover, this hanger and swivel handle for extinguishers solves the existing problem of workers' health overload related to spinal injuries resulting from work, because it allows to perform fire extinguisher inspections without the need to remove it from the wall.

Summary of problems solved by the invention:
- Inspections are regulated by law (once a month)
- Employee exposure to health problems
- For women, the inspection of fire extinguishers is a very onerous task.
- Possibility of fire extinguisher damage if dropped
- Agglomerated extinguishing powder prevents the use of extinguishers
- Inaccuracy of inspection carried out.

The aim of the invention is to develop a simple construction enabling the extinguisher to be rotated without the need to remove it from the wall, with minimal physical effort, so that its periodic rotation can be performed by any person who will undergo a typical, commonly conducted training in occupational safety and health.

An additional assumption is to build the structure from easily accessible elements, so that the unit price of extinguisher equipment - hanger and rotary handle for extinguishers - is achievable for many companies, while permanently and firmly attaching it to the wall.

The principle of operation of the hanger and rotary handle for extinguishers is that the extinguisher rotates in relation to the fixed plate element (1) by connecting it with the roller and the bearing (2) seated on it. The plate element (1) is attached to the wall of the object protected by screws (3). This part is connected to the surface of the second plate element (4), one of whose surfaces is equipped with a cylindrical element (5) with a ball bearing (2) seated on it, placed in the sleeve inset of the element fixed to the wall. The whole is protected against falling out by fixing elements (6).
Both these plate fixture elements have the technical means to equip them with blocking or unlocking elements to enable the rotation of the fixture together with the extinguisher (7) seated in the carrying body.

The main elements forming an object hanger and rotary handle for extinguishers are:
- Rotation locking device
- Carrier body
- Bearing
- Plate elements

Variant No. 1 of the invention of the hanger and rotary handle for fire extinguishers

Extinguisher equipment - hanger and rotary handle for extinguishers - in its first version is adjustable with the possibility of rotation by means of a locking pin and through holes located opposite each other.

In the holes there is a loose cylindrical pin blocking the rotation of this instrumentation together with a fire extinguisher, which after manual removal from these holes enables the rotation of this instrumentation.
Variant No. 2 of the invention - Hanger and swivel handle for fire extinguishers in the version with a slider

Hanger and rotary handle for extinguishers in the second version differs from the first version in that instead of a cylindrical pin blocking the rotation of the extinguisher seated in the holes of plate elements, a manual slide with a head pressurizing a screw compression spring was used.

**Advantages and Innovations**

**Functional advantages:**
- The hanger and rotating handle for extinguishers significantly simplifies the legally regulated (once a month) inspection of extinguishers
- The presented invention is very simple to use, requires only quick training of the employee,
- Thanks to the applied elements, it is not necessary to use a lot of force when checking the fire extinguisher, which relieves the employee's spine.
- The invention enables even women to carry out periodic inspections of fire extinguishers
- The whole structure is stable, safe and does not endanger the users of the rooms
- The effectiveness of all employees participating in periodic fire extinguisher reviews significantly increases and eliminates the possibility of inaccurate performance of the task
- The hanger and swivel handle for extinguishers prevents the extinguisher from being dropped during inspection, meaning that workers are not exposed to injury or damage to the extinguisher
- The system is universal and suitable for all areas where fire protection is required,
- The equipment is easily adaptable to different extinguisher sizes,
- The design ensures a long service life.

**Business advantages:**
- Design protected by law,
- The tooling is cheap in production - the versatility of the parts means that there is no need to make complicated parts to order,
- novelty on the market,
- When you implement it, you can apply for funding such as:
- research and development,
- industrial design,
- technological credits,
- technology transfer (covers purchase costs),
- a fast path,
- business globalization,
- others
  - an easy-to-market product (e.g. increased security, simple operation),

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<th>Technical Specification or Expertise Sought*</th>
<th>(Technical specification or characteristics of the solution sought)</th>
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<th>Comments Regarding IPR Status</th>
<th>(Information on intellectual property rights including the solution offered)</th>
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**Partner sought (characteristics of the partner sought)**

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<th>Type and Role of Partner Sought*</th>
<th>(Partner sought - industrial company, academic centre, research unit, business, etc.; tasks of the partner in future cooperation)</th>
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<td>Production company – developing invention and it’s distributing globally or choosen countries</td>
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<td>• business partnership</td>
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<td>• (partial or total purchase of rights to the development and production of an idea)</td>
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**FOR MORE DETAILS PLEASE CONTACT US:**

- See website with more graphics, 3d animation and prototype: https://wynalazca.tv/wynalazek-na-sprzedaz-wieszak-uchwyt-obrotowy-do-gasnic/
- Email: kontakt@wynalazca.tv
- Phone / whatsapp / signal: +48 662-067-517
- Skype: Wynalazca TV