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FORMED PIECE OF SILVER PALLADIUM
ALLOYS

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Our invention relates to formed pieces made from precious metals, such as wires, sheets and the like, especially pens, fountain pens and the like.

It is known that pens, fountain pens or the like may be manufactured from alloys containing palladium, silver, copper and, if desired, gold. These alloys are on the whole very resistant against chemical influences but tend to corrosion by tension. The manifestation of this corrosion of tension will be seen by cracking or falling to powder of alloys owing to the influence of atmospherics, acids, salt solutions or the like, sometimes without any visible cause. According to our invention this disadvantage may be avoided if formed pieces such as pens, fountain pens or the like are made from alloys with the following composition:

	Per cent
Palladium.....	20-60
Copper.....	0-20
Nickel or zinc, iron, cobalt, tin, cadmium respectively.....	0-10
Silver.....	Rest

The nickel may be replaced by zinc, iron, cobalt, tin, cadmium or the like, either alone or in combination with each other.

Pens, for instance fountain pens, proved to show the necessary qualities if made from the following alloy:

	Per cent
Palladium.....	20-60
Platinum.....	0-20
Copper.....	0-20
Nickel or zinc, iron, cobalt, tin, cadmium respectively.....	0-10
Silver.....	Rest

Pens, fountain pens or the like which have the composition:

	Per cent
Palladium.....	35
Platinum.....	5
Copper.....	10
Nickel.....	0.5
Silver.....	49.5

are substantially free from the disadvantage of corrosion of tension.

These formed pieces, for instance pens, fountain pens or the like, have a very good resistancy also against the influence of ink. This resistancy may be enhanced even more if these pens are coated with precious metals such as gold, rhodium, other metals of platinum group or alloys of these precious metals.

According to our invention the above described alloys do not only avoid the noxious influences of the corrosion of tension but possess even an increased protection against external chemical influences owing to the superficial coating with the above mentioned precious metals. All formed pieces, such as pens, fountain pens or the like which are made in such a way are distinguished by special durability and resistancy.

What we claim is:

1. Formed pieces made from an alloy containing 20-60% palladium, 0-20% copper, 0-10% of a metal from the group consisting of nickel, zinc, iron, cobalt, tin and cadmium, 0-20% platinum, and the remainder substantially all silver.

2. Formed pieces made of an alloy containing 35% palladium, 5% platinum, 10% copper, 0.5% nickel, and 49.5% silver.

3. Formed pieces according to claim 1 having thereon a coating of a precious metal of the group consisting of gold, platinum, and rhodium.

4. Formed pieces according to claim 1, having a coating thereon of an alloy of a metal of the group consisting of gold, platinum and rhodium.

5. A pen made of an alloy containing 20-60% palladium, 0-20% copper, 0-10% of a metal from the group consisting of nickel, zinc, iron, cobalt, tin and cadmium, 0-20% platinum, and the remainder substantially all silver.

6. A pen made of an alloy containing 35% palladium, 5% platinum, 10% copper, 0.5% nickel, and 49.5% silver.

7. A pen according to claim 5, having thereon a coating of a precious metal of the group consisting of gold, platinum, and rhodium.

8. A pen according to claim 5, having thereon a coating of an alloy of a metal of the group consisting of gold, platinum and rhodium.

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