

39TH INTERNATIONAL CONGRESS FOR THE HISTORY OF PHARMACY
VIENNA 2009

***INDUSTRIAL MEDICINE
PRODUCTION FOR THE ARMY
DURING THE SPANISH CIVIL WAR
(1936-1939).***



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Spanish Civil War (1936-1939)

- The Spanish Civil War (1936-1939) divided the country into two enemy parts:
- The National side (which was organized around the mutiny) and the Republican side (which lost the war, and it supported the Republican Government of the Second Republic).



**Savoia-Marchetti SM.81
during an air riot**



**Volunteers swearing loyalty
to the Republic.**

Spanish Civil War: The Nationalists

- The Nationalists were supported by the conservative classes and some religious sectors. It had great acceptance at the country and farming areas. It was formed by conservative political parties, Catholics, supporters of La Falange, monarchists and Carlistas.
- It received foreign support from the Axe of the Second World War: Germany, Italy and volunteer groups of Ireland and Portugal. Franco's Army had troops coming from the conflict at the Spanish Morocco.



Poster of the nationalists

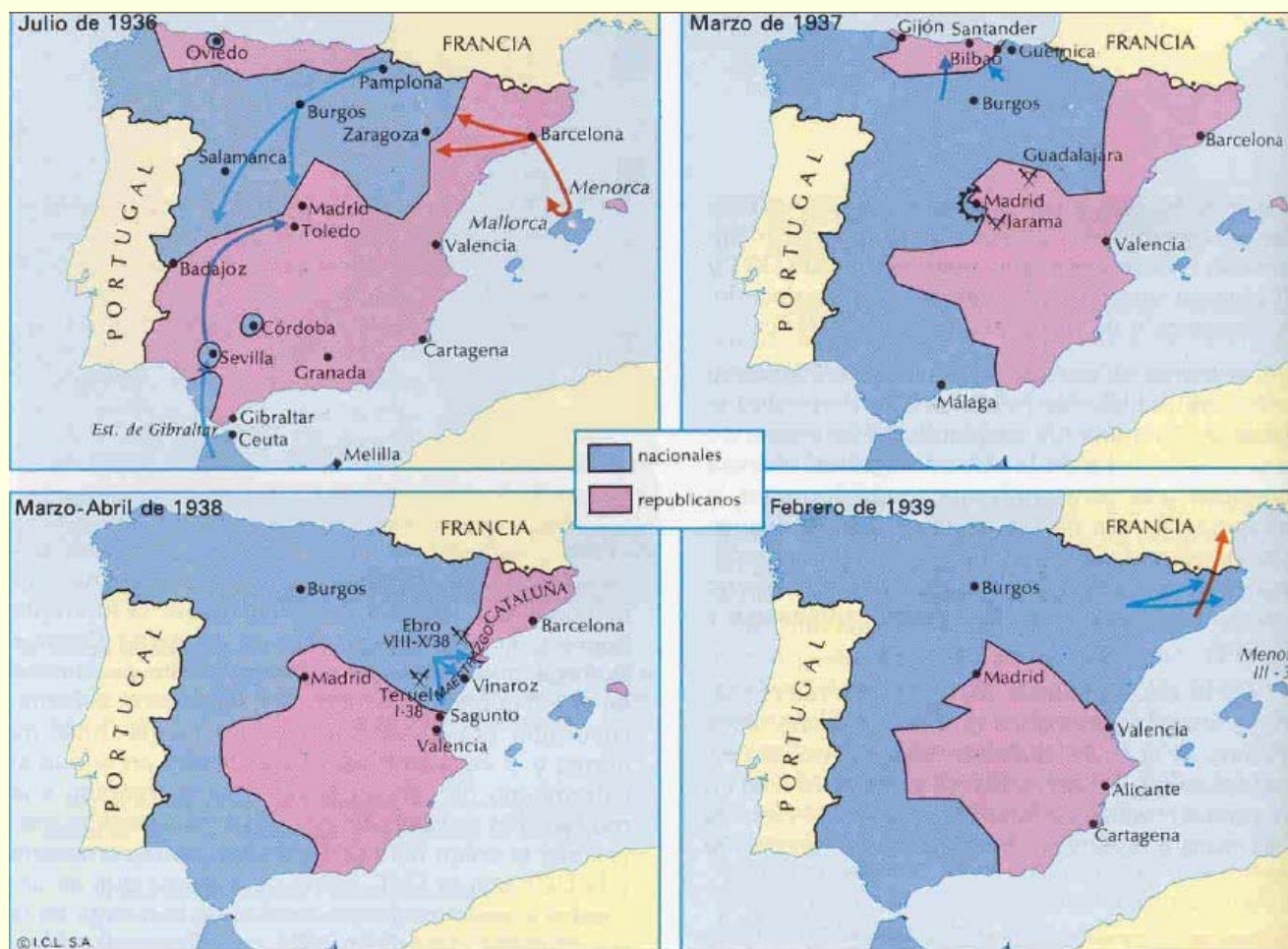
Spanish Civil War: The Republicans

- The Republican side was supported by big industrial cities: Madrid, Barcelona, Valencia, Bilbao. It was formed by different democratic political parties.
- It received little foreign help from the Allies of the Second World War, due to the Non International Intervention Committee.
- It did received support from the USSR. It provided military equipment an assistance, from Mexico and the International Brigades.



Poster of the republicans

Spanish Civil War chronology (1936-1939)



The Spanish Military Pharmacy

- The Spanish military pharmacy was body dependent on the Military Health Body of the Army.
- It employed more than 130 pharmacists divided up in eight Organic Divisions (Madrid, Seville, Valencia, Barcelona, Zaragoza, Burgos, Valladolid and La Coruña).



Pharmaceutical assistants (1927)
Military Pharmacy Museum

The Spanish Military Pharmacy

- The Central Military Pharmacy Laboratory was under the Military Pharmacy's jurisdiction.
- This laboratory was the only military medicine producing center that also distributed medicines to all military health spots as well as military warehouses.



Central Military Pharmacy Laboratory of Madrid

The Spanish Military Pharmacy

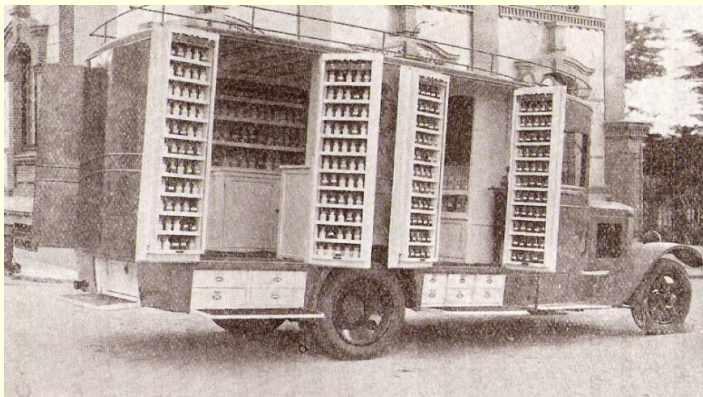
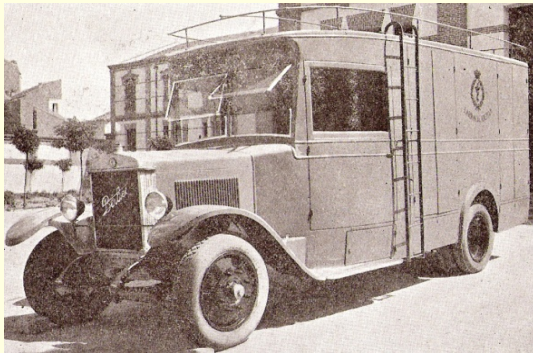
- **Rafael Roldán, famous military pharmacists:**

“The Spanish Military Pharmacy was, in 1931, an undervalued military health service. It had little funds, poor regulations and used antiquated techniques and procedures. In case of war, the staff would not be trained to face the situation and the infrastructures would not be enough.”

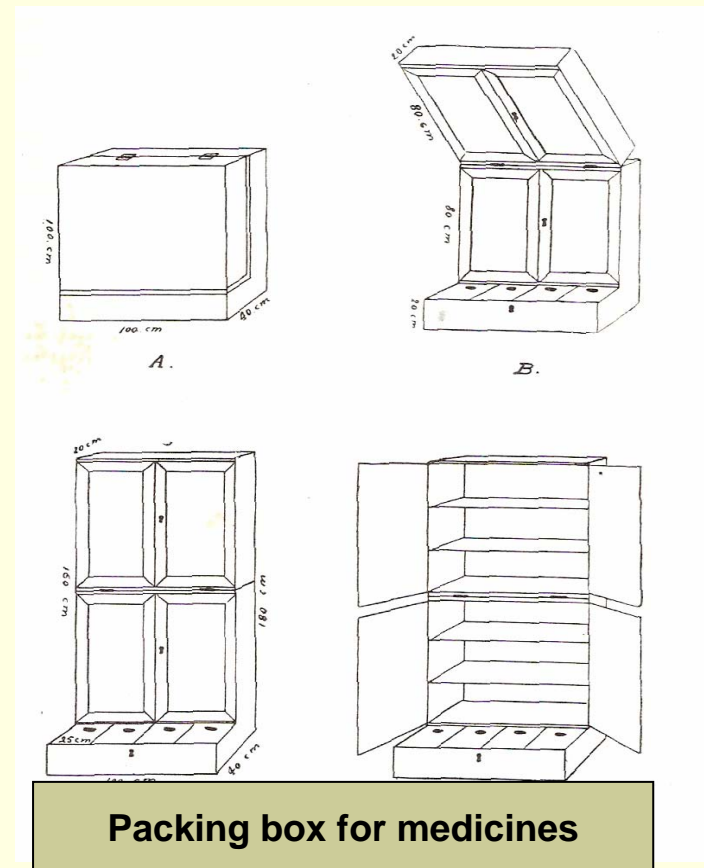


Rafael Roldán's portrait.
Military Pharmacy Museum

The Spanish Military Pharmacy: Pharmaceutical war equipment.



Delivery van "Campoy model"



Packing box for medicines

The Spanish Military Pharmacy

- The aim of this project is to analyze the medicine supply and organization of the Military Pharmaceutical Services on both sides of the encounter, during the Spanish Civil War.



Laboratories used in the Civil War (1936-1939).
Military Pharmacy Museum

Spanish Civil War

Foreign trade (1936-1939)

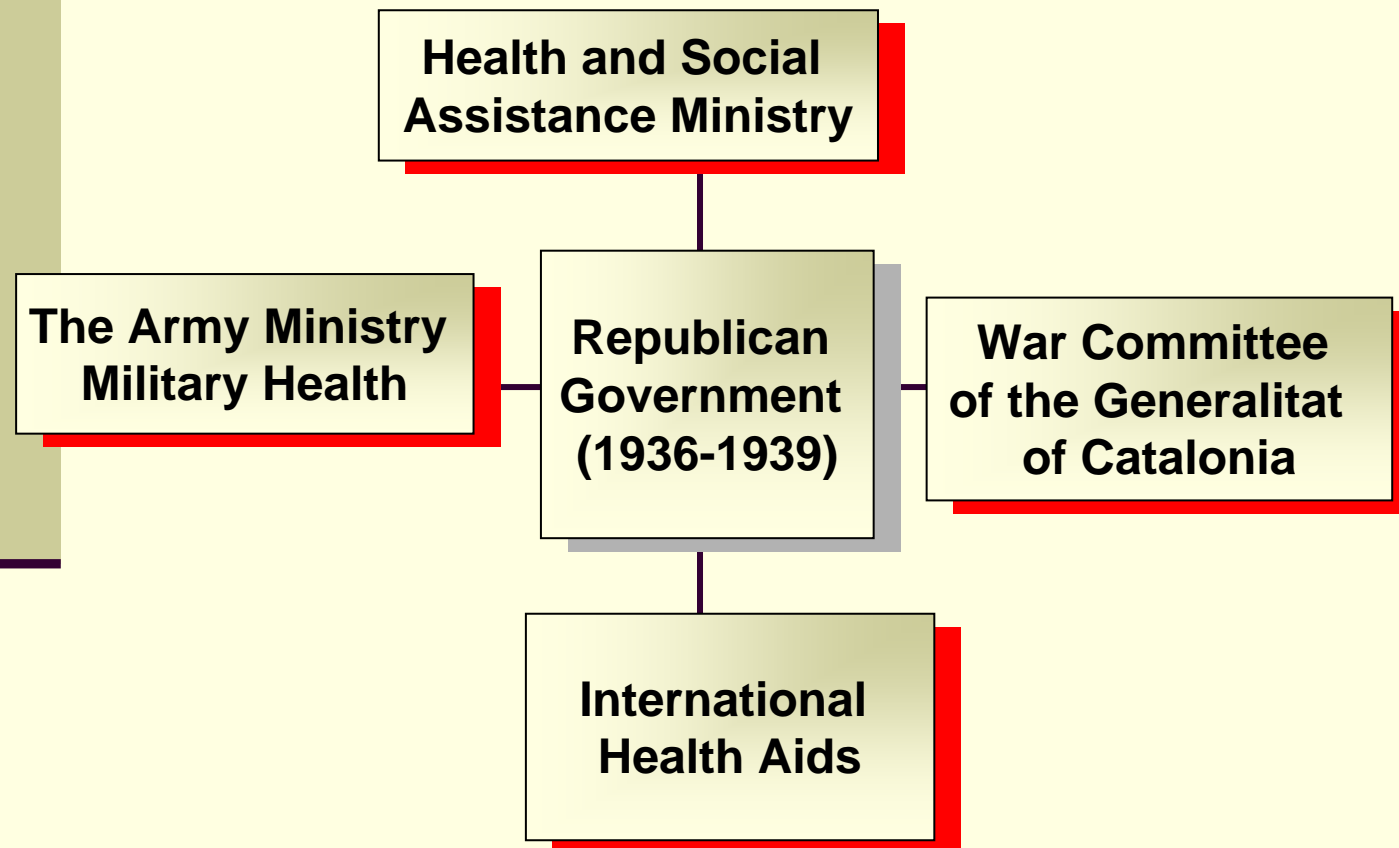
- Measures taken by both Republican and National areas:
 - administration of foreign currency
 - central regulation of all foreign trade operations:
 - The Republican government created the CAMPSA-Gentibus Company.
 - The National forces created the Executive Foreign Trade Committee (CECE).
- Importations of medical and pharmaceutical products decreased during the war.



The Bank of Spain,
the most influential body
in the government's
currency policy

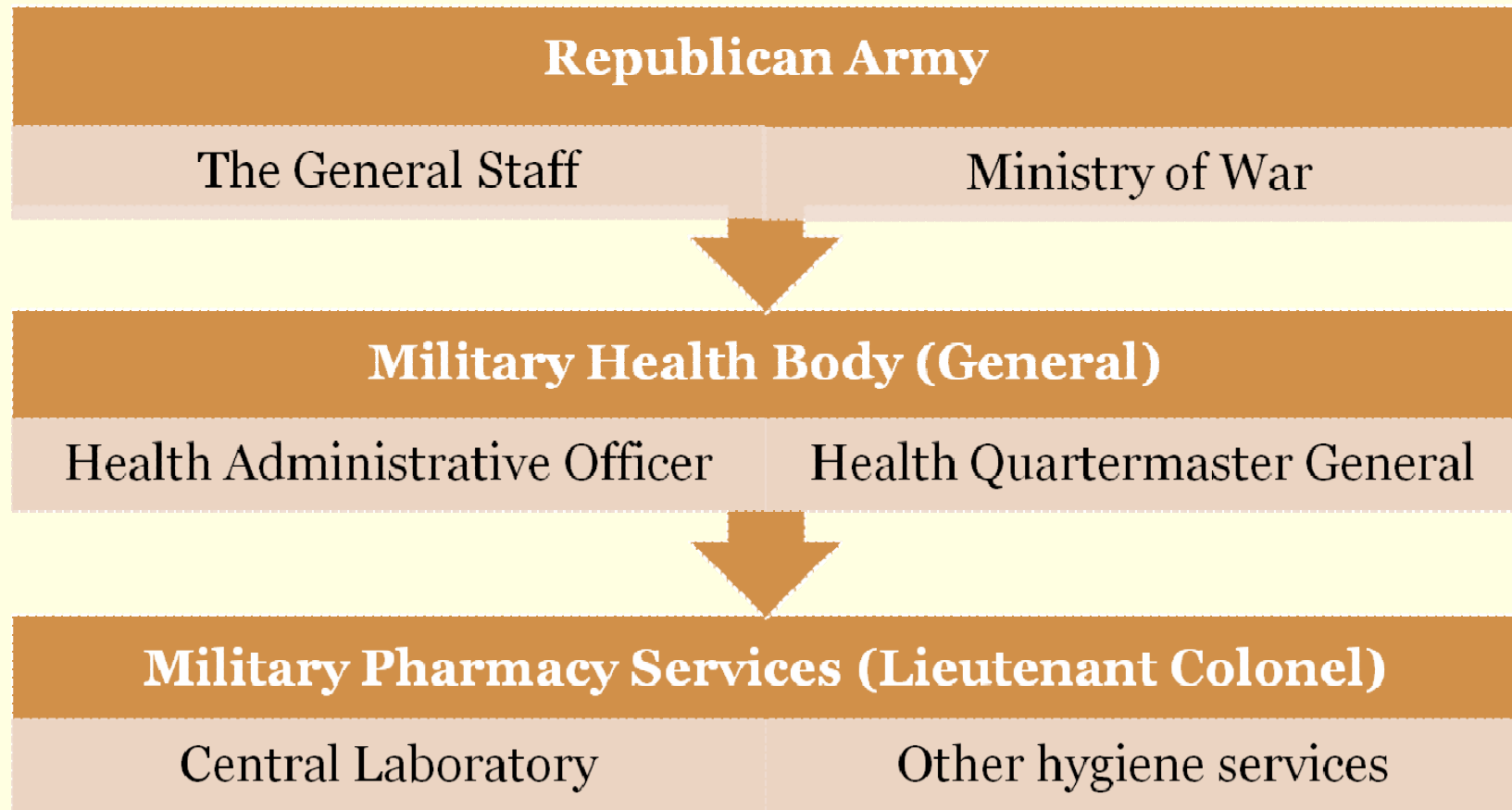
The Republican Government (1936-1939)

Military Health



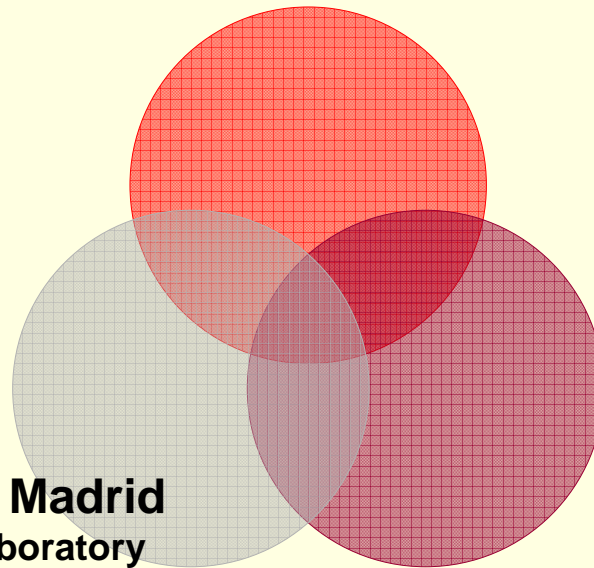
Manuel Azaña
President of the
Republic of Spain

Military Pharmacy Service. The Republican Army (1936-1939)



Medicine production. Republican Army (1936-1939)

The Central Military Pharmacy Laboratory



School of Pharmacy of Madrid

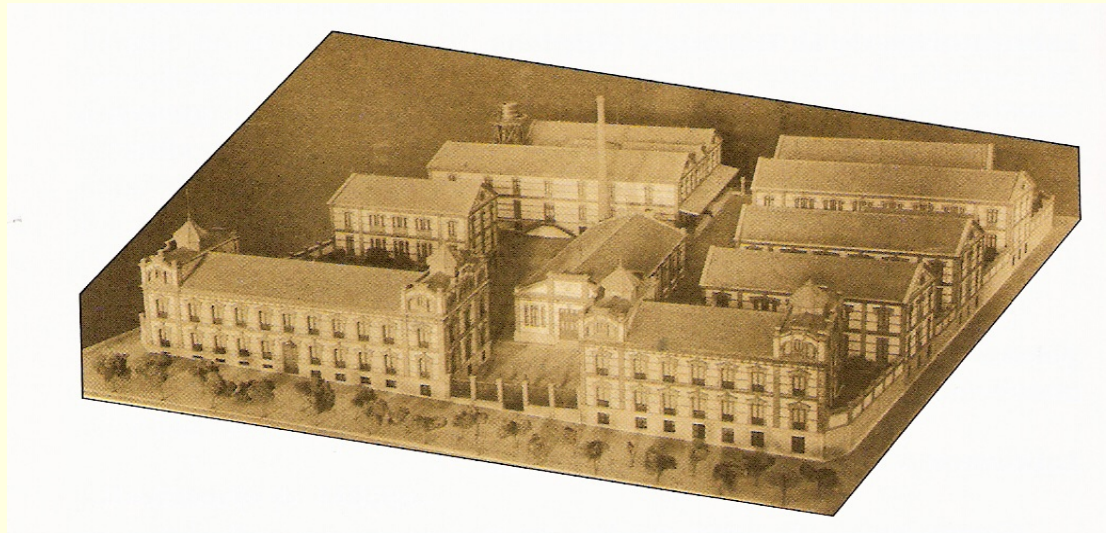
- Galenic Pharmacy Laboratory
- Organic Chemistry Laboratory

Civilian Industries

(under contract with the Ministry of War)

- Abelló Laboratory
- E. Boizot Laboratory Inc.
- Ibys
- Llorente Institute.
- Sandoz Laboratories
- Esteve Laboratories

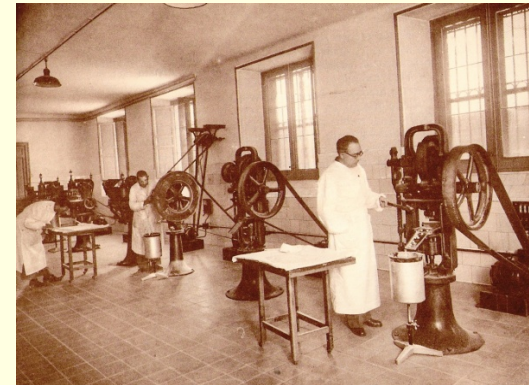
The Central Military Pharmacy Laboratory



- This laboratory was created in 1879, and it produced and distributed the medicines ordered by the Military Health Body.
- In 1936, the laboratory's warehouse stocked enough supplies of the 720 elements that were necessary to produce the 129 medicines included in the "Military Petitorio".

The Central Military Pharmacy Laboratory

- The medicines were produced in form of:
 - Solid medicines to be taken orally: pills, granules, capsules and tablets.
 - Medicines to be taken by injection.
 - Liquid extracts: watery and alcoholic extracts.
 - Suppositories.
 - Suture and curing material.
 - Reagents.



Capsules' production room



Granulate machine

The Central Military Pharmacy Laboratory



Dep 1. “Especialidades”

Dep.2. Chemical and galenic products

Dep 3. Analysis and research

Dep 4. Injections, creams and glass blowing

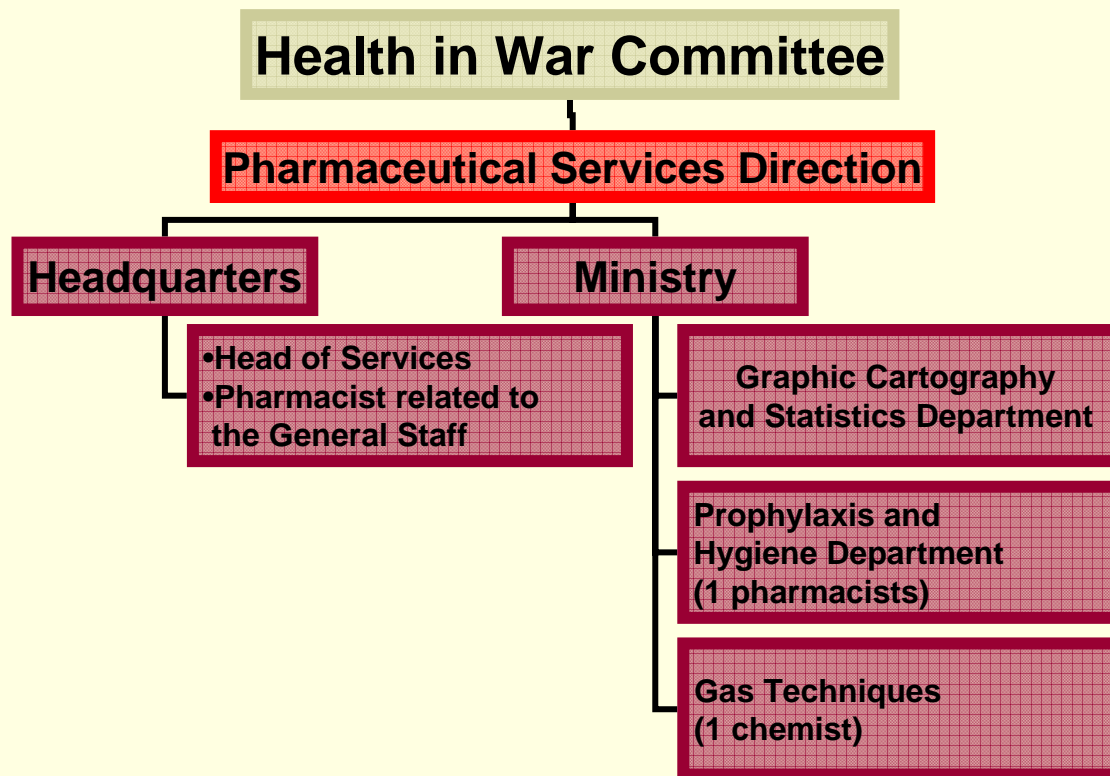
Dep 5. Surgical dressings and sutures

Dep 6. Scientific and technical equipment

Dep 7. Warehouses and packing

Dep 8. Flammable material

Military Pharmaceutical Services. Generalitat of Catalonia (1936-1939)



Lluís Companys
President of the
Generalitat de
Catalunya

Medicine production. Generalitat of Catalonia.

**Pharmaceutical Services General Commission
Laboratories Department.**

Chemical-pharmaceutical Research Institute

Science Schools (Barcelona)

Chemical-industrial laboratory

Analytical control laboratory

Physical-chemical laboratory

Pharmacy School of Barcelona

Chemical-pharmaceutical industrial orientation laboratory

Medicines ("especialidades") control laboratory

Anesthetics control laboratory

Medicines control laboratory

Military Pharmacy Services. National Army (1936-1939)

National Defense Ministry

Pharmaceutical General Commission

Services Headquarters (4)

Services Offices of:

Army's bodies (14)

Groups of Divisions (4)

Divisions (54)

Regional Offices (5)

The Commission of
Concentration Camps (1)



Francisco Franco
Head of State

Medicine Production National Army

**Military Pharmaceutical Complex
Northern Army of Burgos.**

- Laboratory of Santiago de Compostela
- Laboratory of Granada

**Military Pharmaceutical Complex
Fifth Army of Zaragoza.**

**Military Pharmaceutical Complex
Central Army of Valladolid.**

**Military Pharmaceutical Complex
Southern Army of Seville.**

**Military Pharmaceutical Complex
Eastern Army of Calatayud**

Military Pharmaceutical Complex of the Central Army of Valladolid.

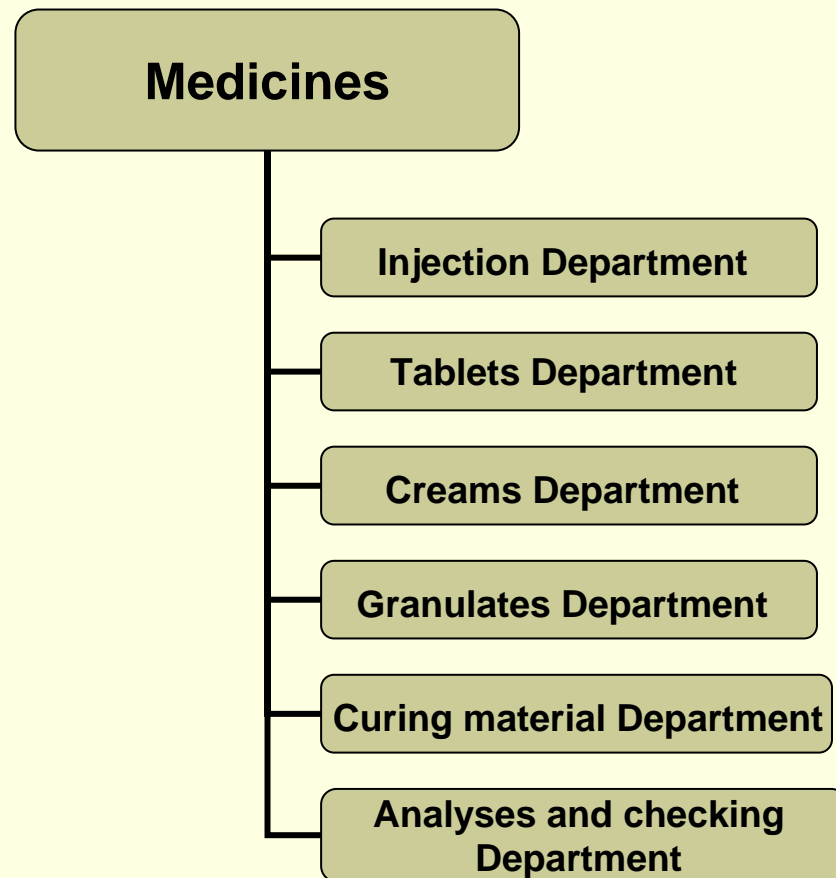
- It was the main franquist military body that provided medicines to all “military columns”, and organized the pharmacies of the conquered lands.
- In this Complex was edited the *“Petitorio. Abbreviated form for the Medical and Veterinarian services of the Spanish Army”* (Valladolid, May 1937). It was a basic tool for orientating doctors when it came to give prescriptions.



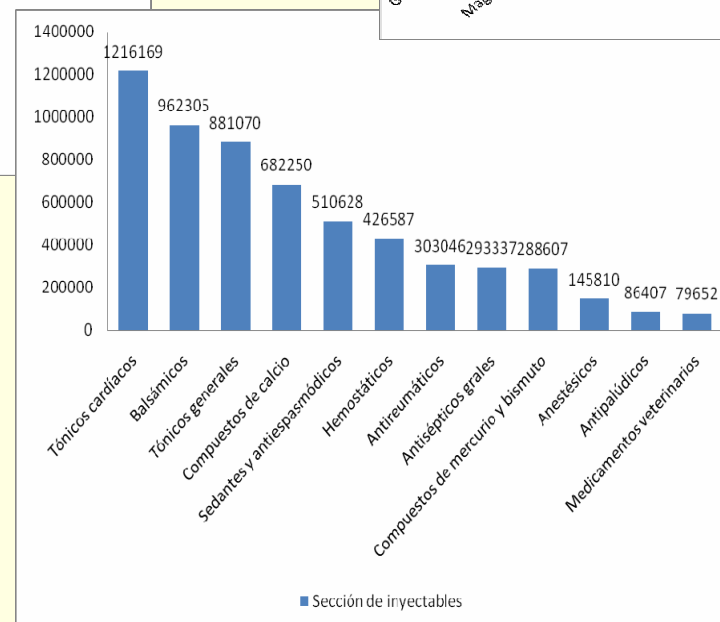
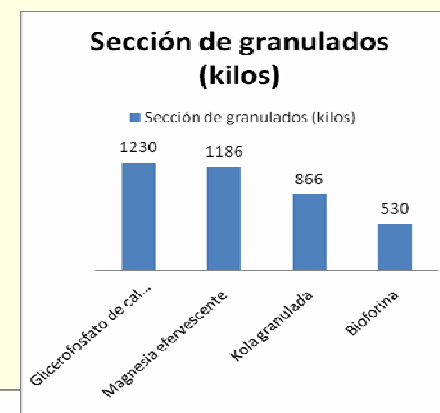
It comprised a huge warehouse with material and the *Lope de Vega Theater*, in Valladolid.

Military Pharmaceutical Complex of the Central Army of Valladolid.

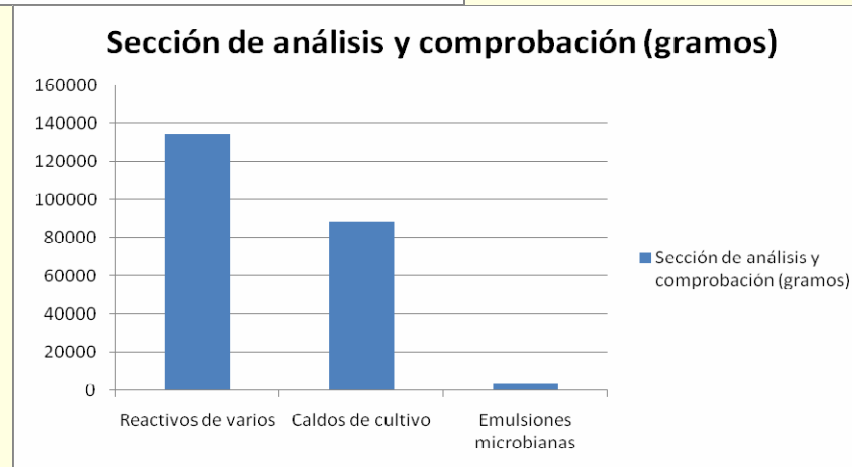
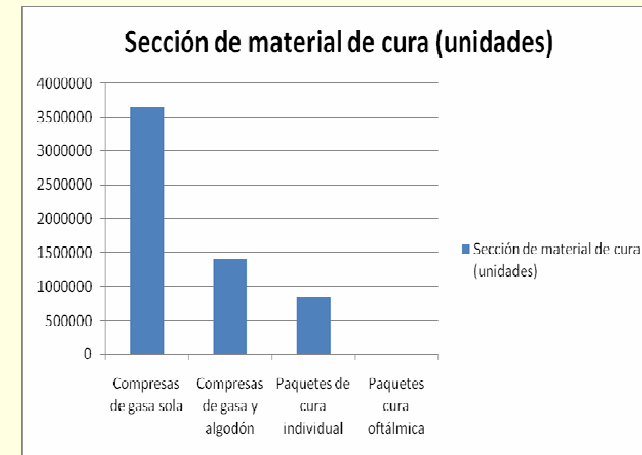
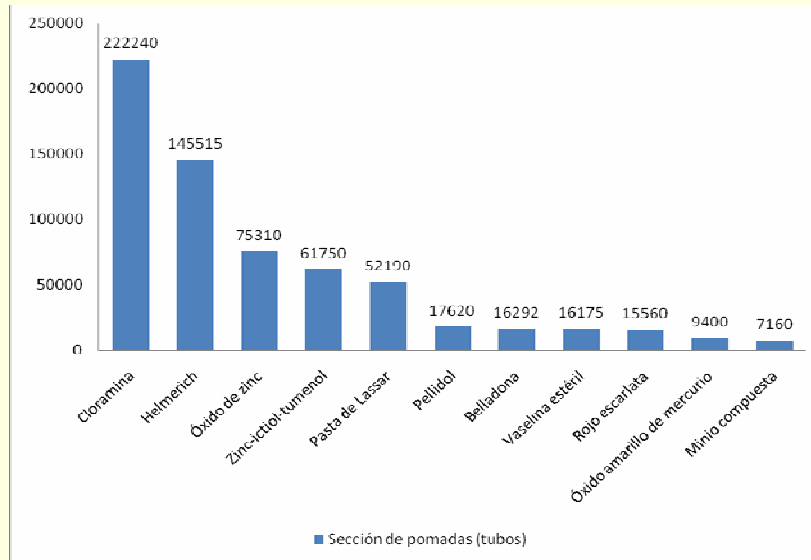
- These Departments for the elaboration of medicines were installed following the patterns of the Central Laboratory of Madrid, although with poor resources.
- The following facts belong to the “Official Memoire of the Pharmaceutical Complex of the Army. Valladolid (1936-1939)”.



Military Pharmaceutical Complex of the Central Army of Valladolid.



Military Pharmaceutical Complex of the Central Army of Valladolid.



Military Pharmaceutical Complex of the Southern Army of Seville

- The Military Pharmaceutical Complex of the Southern Army of Seville (1937) was installed at the military pharmacy of Seville.
- It worked together with the glass blowing factory “La Trinidad”. At the factory, long pieces of glass were transformed into ampoules for injections.
- Later, the Complex was moved to the Telefonica´s Pavilion, at “El Parque de Maria Luisa”. There, it could enjoy the same facilities as the Complex of Valladolid.

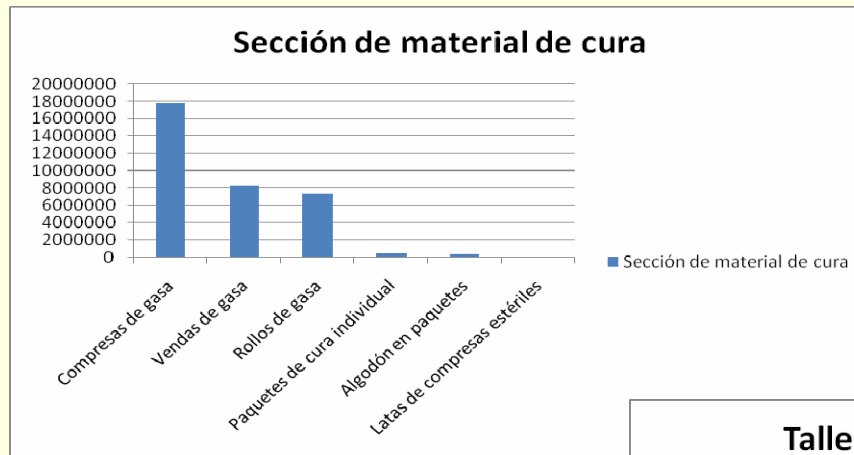


Glass blowing factory
“La Trinidad”, Sevilla



Telefonica´s Pavilion.
Plaza Nueva, Sevilla

Military Pharmaceutical Complex of the Southern Army of Seville



Military Pharmaceutical Complex of the Fifth Army of Zaragoza.

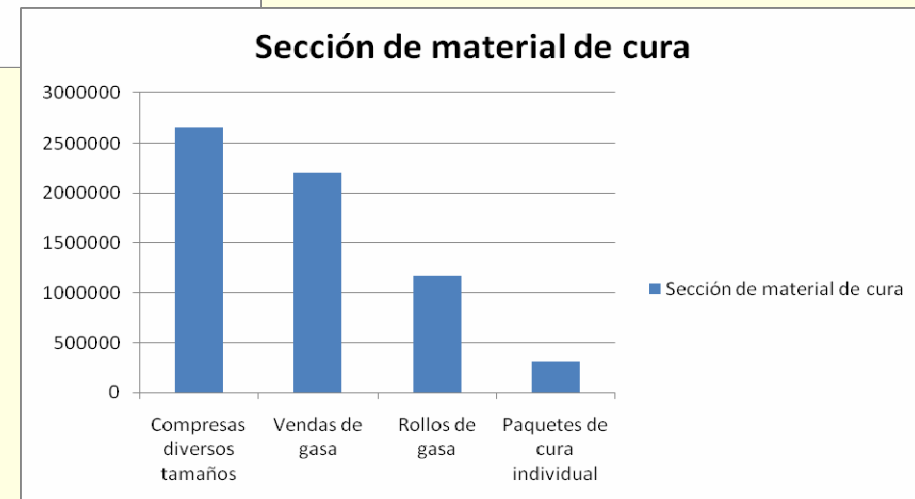
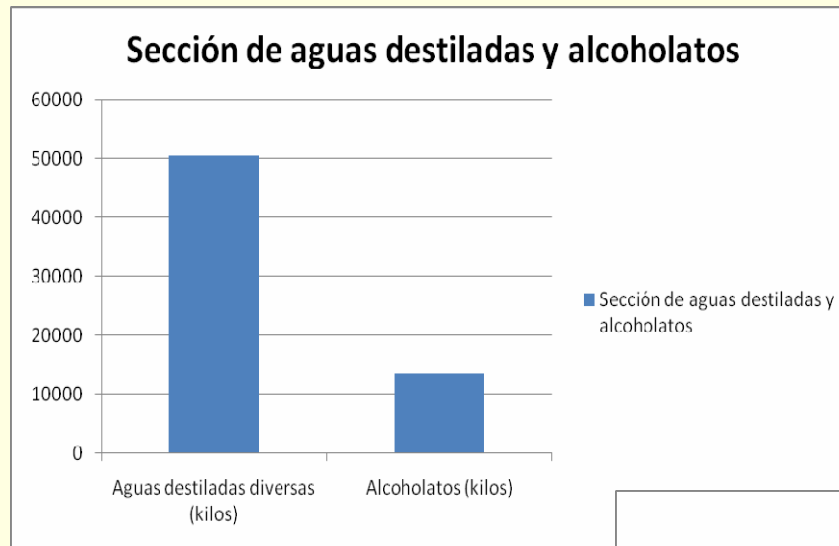
- This Complex was built in a building of the School of Medicine in Zaragoza, and it looked after the troops of this region.
- Later on, the Complex had to widen its duties, when the Northern Army moved to Aragon to take over Barcelona and Levante.



17. - ZARAGOZA. - Gran Via

Gran Via Street, and the School of Medicine at the right

Military Pharmaceutical Complex of the Fifth Army of Zaragoza.



Military Pharmaceutical Complex of the Fifth Army of Zaragoza.

- It worked as a “*Mixed van, Surgery, Pharmacy and Dietetics*” for the “*Divisionary Relief Spot*”.
- The *Factory of Carde and Escoriaza* (Zaragoza), produced military equipment for the National Army.
- In this case, they used a vehicle’s chassis and half wagon (17-9-1937).



Heath van of the *Division 105*

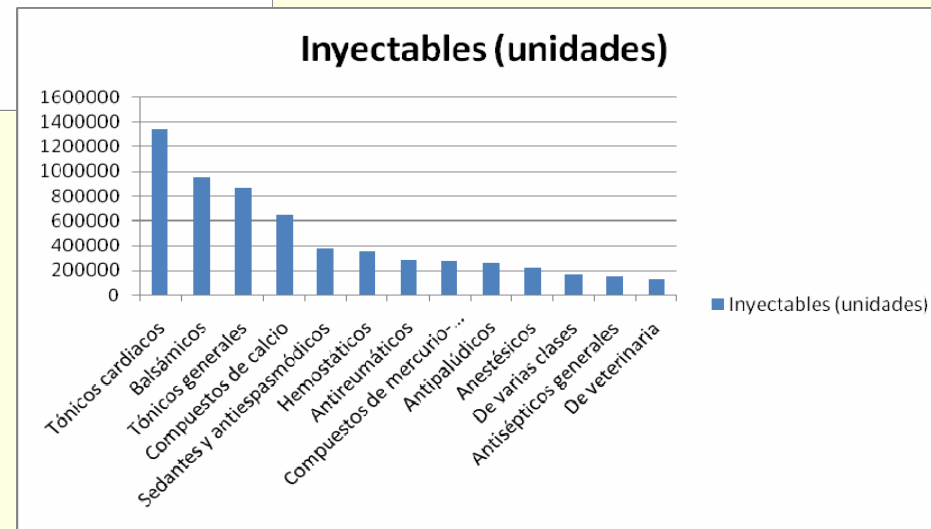
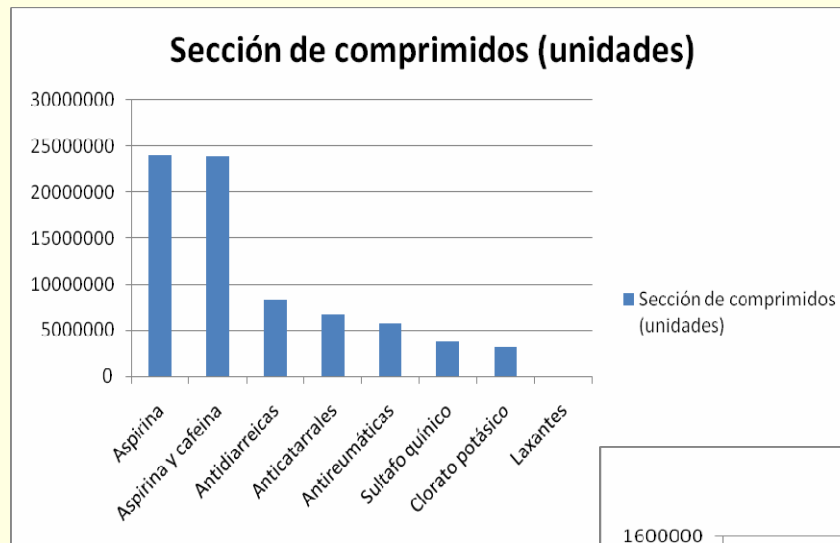
Military Pharmaceutical Complex of the Northern Army of Burgos.

- It was created in 1937, and it had the following departments:
 - Distilled Water and Alcohols Department.
 - Extracts Department.
 - Tablets Department.
 - Injections Department.
 - Creams Department.
 - Curing Material Department.

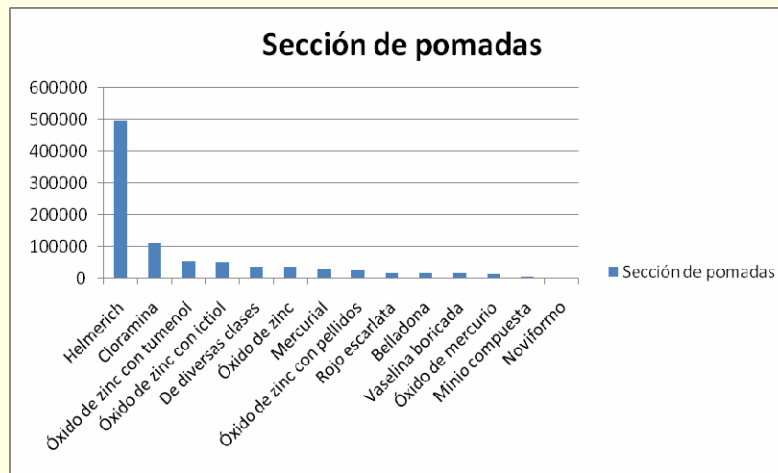


Military Pharmaceutical Complex of Burgos

Military Pharmaceutical Complex of the Northern Army of Burgos.



Military Pharmaceutical Complex of the Northern Army of Burgos.



Military Pharmaceutical Complex of the Eastern Army of Calatayud

- It was created in 1938 and it was only open for four months.
- It was in charge of purchasing and delivering medicines and curing and pharmaceutical material.



Military Pharmaceutical Complex
of Calatayud (Zaragoza)

Chemical-Pharmaceutical Laboratory. Southern Army. Granada.

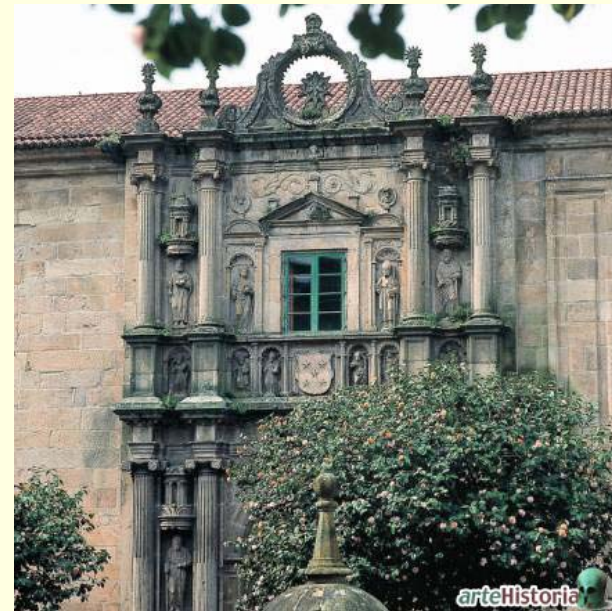
- It worked for twenty- seven months at the School of Pharmacy in Granada, under orders of the Military Pharmacy.
- It offered 94 different products: silver salts, specially *argirol*, thanks to its results similar to *argirol Barnes*.
- *Anesthetic ether* was produced and kept in ampoules, and it was the only ether used as an anesthetic at the Military hospitals of the Southern Army.



School of Farmacia (Granada)

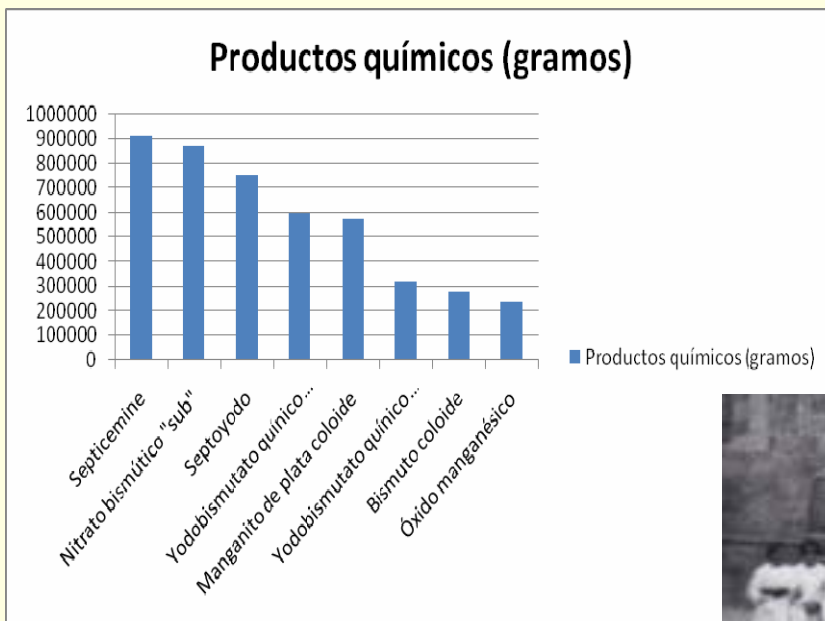
Chemical-Pharmaceutical Laboratory. Central Army. Santiago de Compostela

- The production at this center was divided into five departments:
 - “Especialidades” and Research Department.
 - Chemical products Department.
 - Injections Department.
 - Galenic Preparations (medicines) Department.
 - Aseptic and Antiseptic curing Department.



School of Fonseca.
Old School of Pharmacy,
Santiago de Compostela

Chemical-Pharmaceutical Laboratory. Central Army. Santiago de Compostela



The laboratory financed the pharmacy-vehicle
"Santiago de Compostela"
In Brasa Arias, B. *Gaceta del Aula Militar*
Bermúdez de Castro. Castellón, 2008. nº 82

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Thank you very much for your attention

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