

NACIONES UNIDAS



CONSEJO  
ECONOMICO  
Y SOCIAL



LIMITADO  
CCE/SC.5/CRNE/III/4  
13 de septiembre de 1968  
ORIGINAL: ESPAÑOL

COMISION ECONOMICA PARA AMERICA LATINA  
COMITE DE COOPERACION ECONOMICA  
DEL ISTMO CENTROAMERICANO  
SUBCOMITE CENTROAMERICANO DE ELECTRIFICACION  
Y RECURSOS HIDRAULICOS

Comité Regional de Normas Eléctricas  
Tercera reunión  
Panamá, 18 al 23 de septiembre de 1968

PROYECTO DE NORMA CRNE-5

NOMENCLATURA DE MATERIALES Y EQUIPOS PARA OBRAS  
DE DISTRIBUCION

(Programa de normalización de equipos y materiales  
eléctricos en el Istmo Centroamericano)

Documento elaborado para el Comité Regional de Normas Eléctricas por el  
experto señor Rafael Carrillo Lara, integrante de la Misión Centroamericana  
de Electrificación y Recursos Hidráulicos.

## PRESENTACION

Durante la segunda reunión del Comité Regional de Normas Eléctricas la secretaria presentó a su consideración un documento sobre Programa de normalización de equipos y materiales eléctricos en el Istmo Centroamericano. I. Normalización de tensiones para sistemas de distribución.

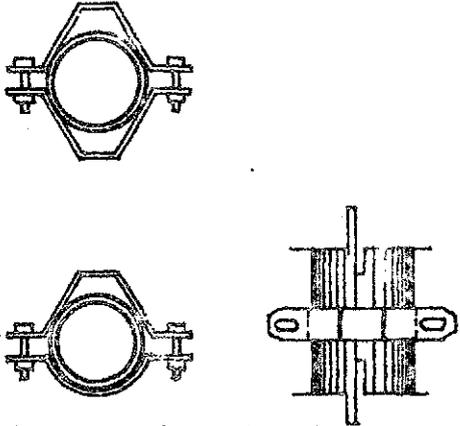
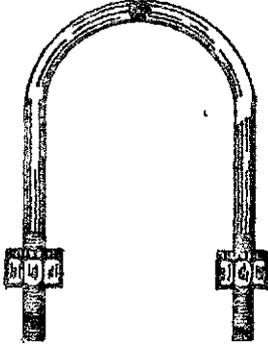
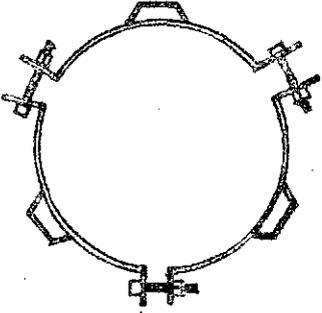
II. Nomenclatura para materiales de obras de distribución

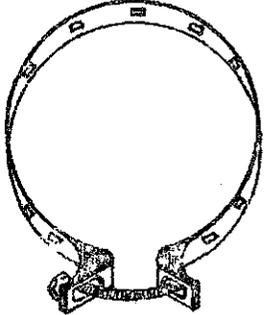
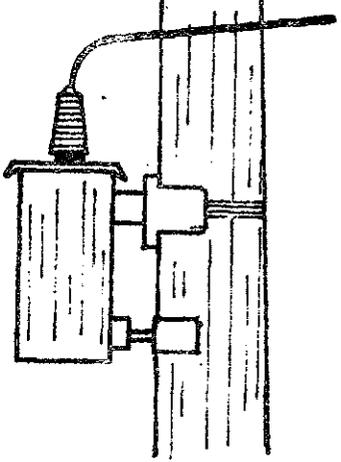
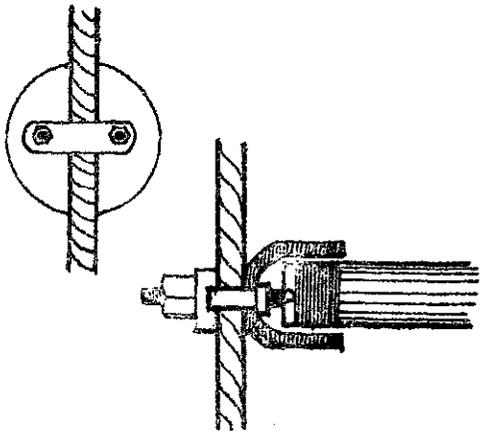
(CCE/SC.5/GTAE/CRNE/II/1; TAO/LAT/84). En la segunda parte de dicho documento se presentaba una recopilación de la nomenclatura utilizada por algunas de las empresas del Istmo sobre las que se disponía de información. Se destacaba asimismo la diversidad de denominaciones utilizadas para un mismo artículo y la importancia de contar con un lenguaje común que facilitase la labor de normalización. Como consecuencia de ello el Comité resolvió solicitar a las empresas eléctricas del Istmo Centroamericano que facilitasen a la Misión Centroamericana de Electrificación y Recursos Hidráulicos la información necesaria con el objeto de formular las bases de una nomenclatura uniforme de alcance regional.<sup>1/</sup>

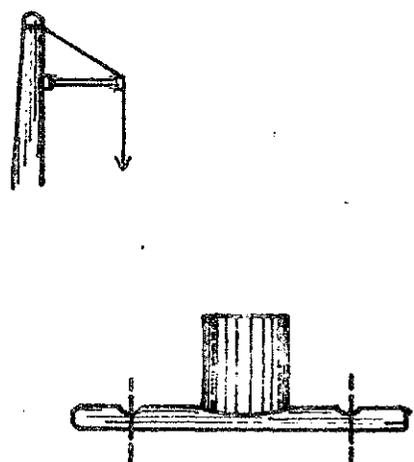
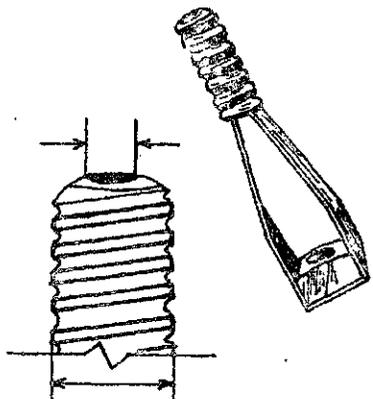
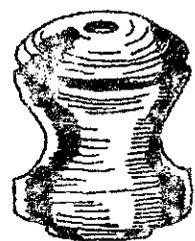
El proyecto de norma que se presenta al Comité en este documento ha sido elaborado con base en la nomenclatura utilizada en los varios países del Istmo y en México. El nombre propuesto para cada material o equipo es el que se considera más apropiado para uso común, y debe interpretarse en muchos casos como nombre genérico representativo de diversos tipos de materiales o equipos, como un primer paso hacia la confección de una codificación regional uniforme.

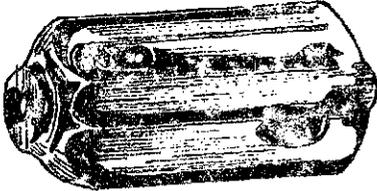
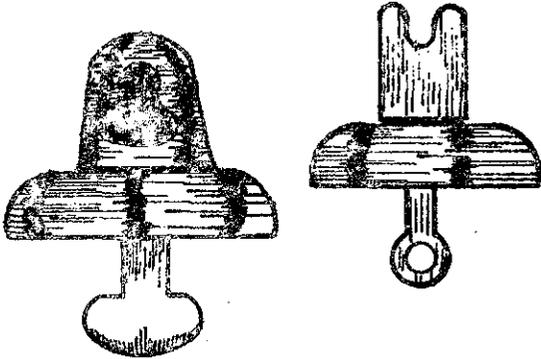
Las últimas tres páginas contienen ilustraciones de ciertas piezas usadas en líneas de 34.5 kV, que se incluyen con el objeto de recibir comentarios del Comité Regional, ya que dicho voltaje fue normalizado como tensión eléctrica de distribución primaria.

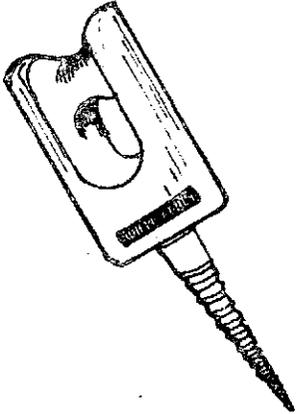
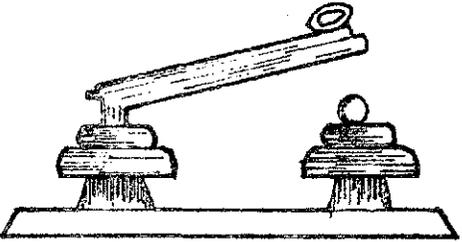
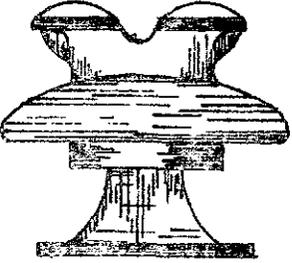
<sup>1/</sup> Resolución 10 (CRNE) aprobada el 4 de mayo de 1968.

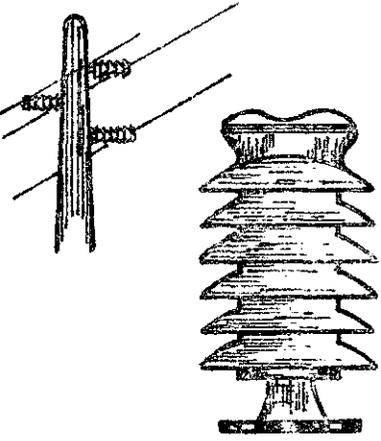
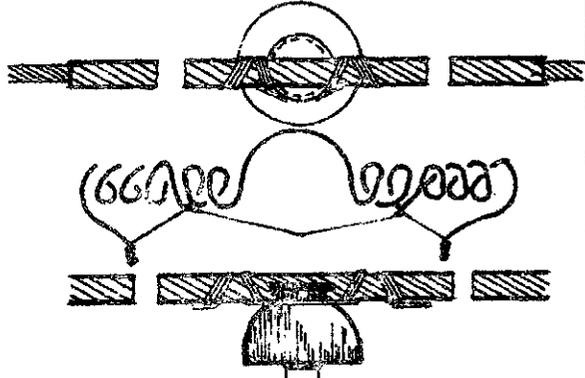
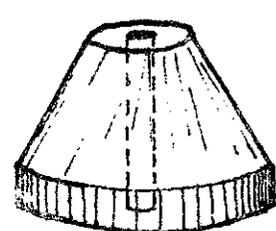
	Nombre	Ilustración
	<p>ABRAZADERA (Doble-sencilla)</p>	
	<p>ABRAZADERA "U"</p>	
	<p>ABRAZADERA UNIVERSAL (Triple)</p>	

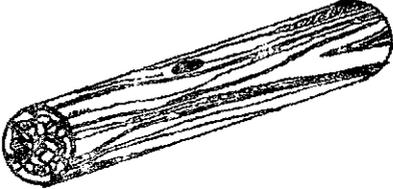
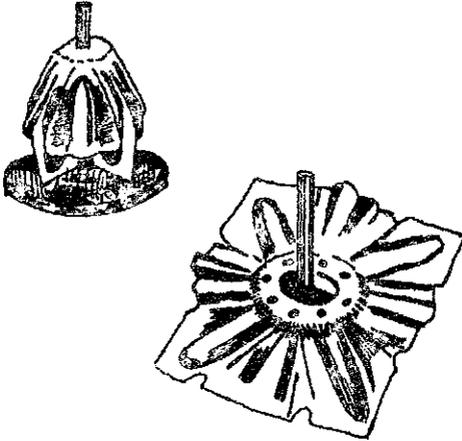
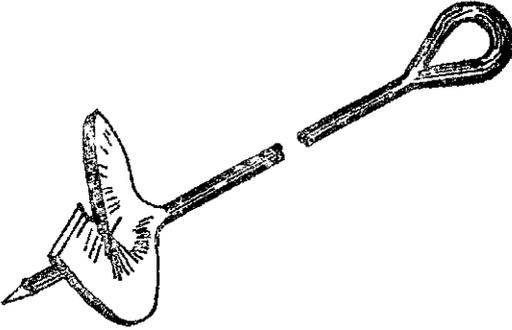
	Nombre	Ilustración
	<p><b>ABRAZADERA UNIVERSAL (Sencillo)</b></p>	
	<p><b>ABRAZADERA PARA TRANSFORMADOR</b></p>	
	<p><b>ACCESORIO PARA RETENIDA DE ACERA (Grapa)</b></p>	

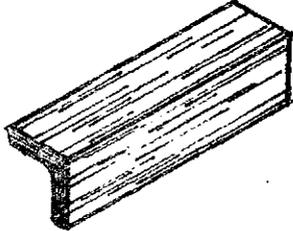
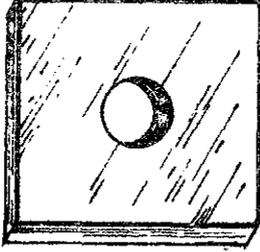
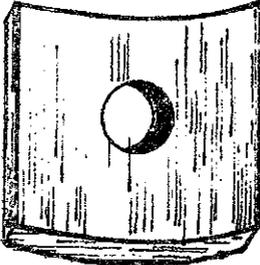
	Nombre	Ilustración
	<p>ACCESORIO PARA RETENIDA DE ACERA (Base)</p>	
	<p>ADAPTADOR PARA AISLADOR</p>	
	<p>AISLADOR DE CARRETE</p>	

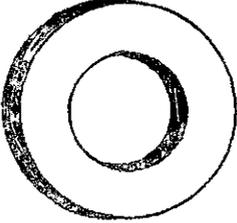
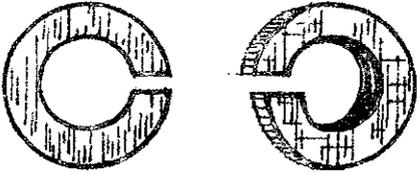
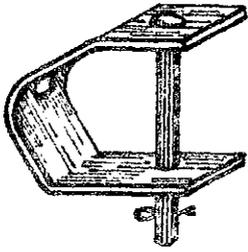
	Nombre	Ilustración
	AISLADOR DE ESPIGA	 A black and white technical drawing of a spike insulator. It features a central vertical rod with a rounded top and a wider, flared base. The base has a small notch or indentation on its top surface.
	AISLADOR DE TENSION	 A black and white technical drawing of a tension insulator. It is a cylindrical component with a series of horizontal ridges or segments along its length. It has a slightly wider base and a slightly narrower top.
	AISLADOR DE SUSPENSION	 Two black and white technical drawings of suspension insulators. The one on the left shows a bell-shaped top section with a central vertical rod that ends in a circular base. The one on the right shows a similar bell-shaped top section with a central vertical rod that ends in a circular base with a hole through its center.

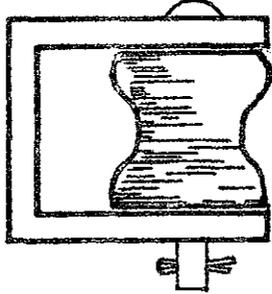
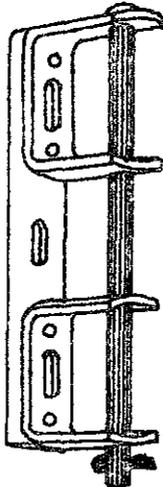
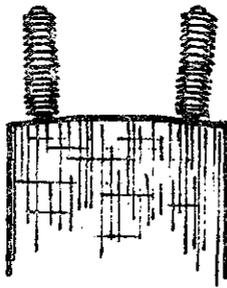
	Nombre	Ilustración
	<p><b>AISLADOR DE TORNILLO PARA ACOMETIDA</b></p>	
	<p><b>AISLADOR TIPO PEDESTAL (Para cuchillas)</b></p>	
	<p><b>AISLADOR TIPO PEDESTAL (Sencillo)</b></p>	

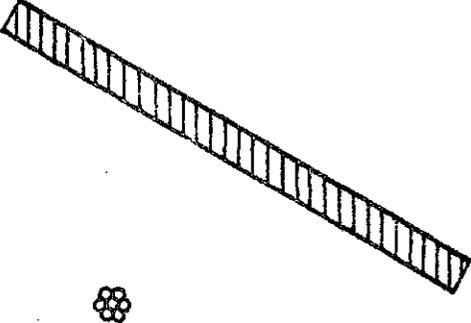
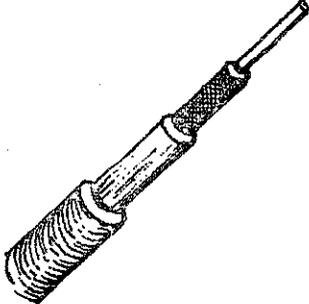
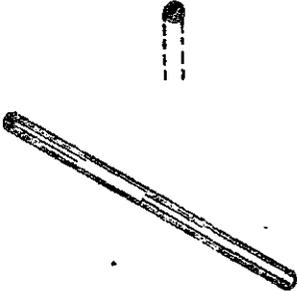
	Nombre	Ilustración
	AISLADOR TIPO POSTE	
	ALAMBRE PARA AMARRES	
	ANCLA CONICA DE CONCRETO	

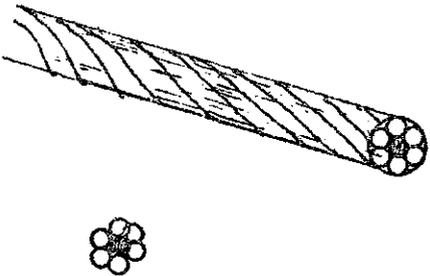
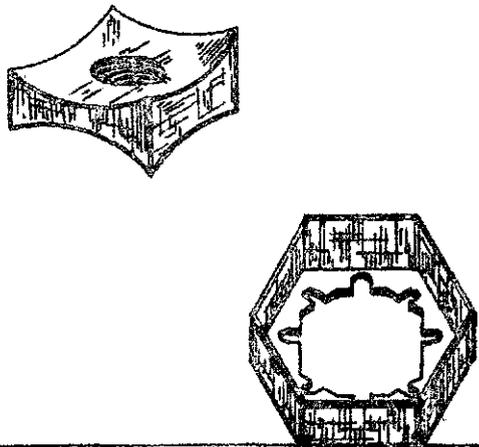
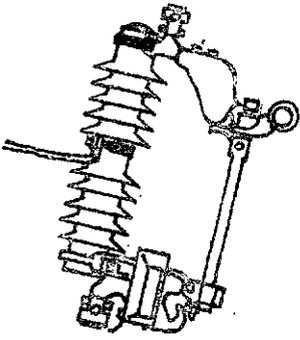
	Nombre	Ilustración
	ANCLA DE MADERA	
	ANCLA EXPANSIVA	
	ANCLA TIPO HELICE	

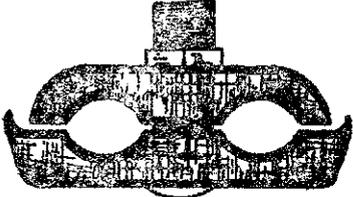
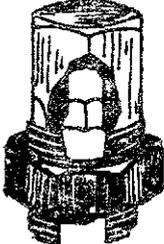
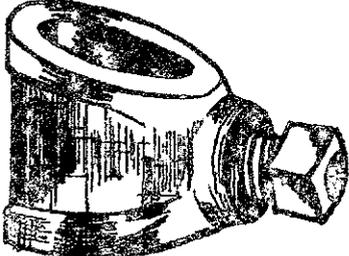
	Nombre	Ilustración
	ANGULO DE HIERRO O DE ALUMINIO	
	ARANDELA CUADRADA	
	ARANDELA CURVA	

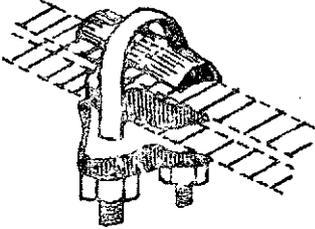
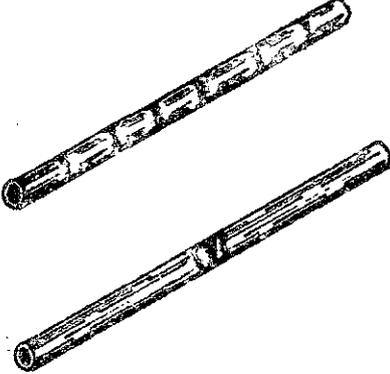
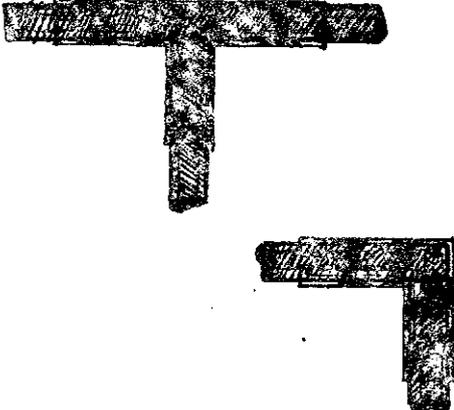
	Nombre	Ilustración
	<p>ARANDELA REDONDA</p>	
	<p>ARANDELA DE PRESION</p>	
	<p>BASTIDOR PARA AISLADOR (Estribo)</p>	

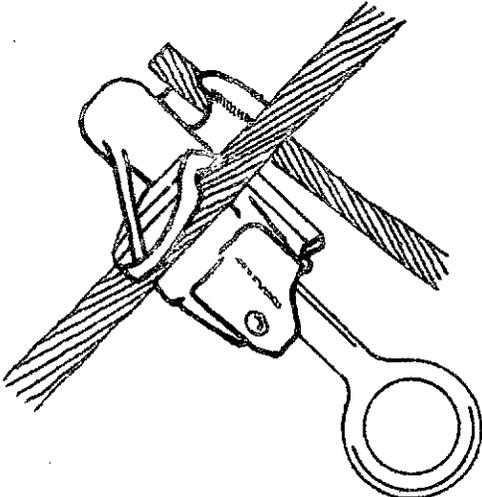
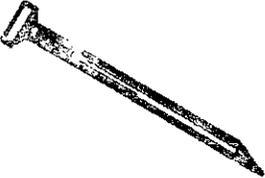
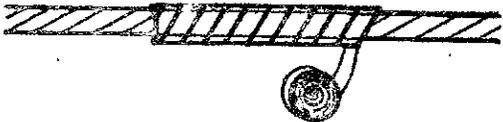
	Nombre	Ilustración
	<p>BASTIDOR PARA AISLADOR (Sencillo)</p>	
	<p>BASTIDOR PARA AISLADORES</p>	
	<p>BOQUILLA PARA TERMINAL</p>	

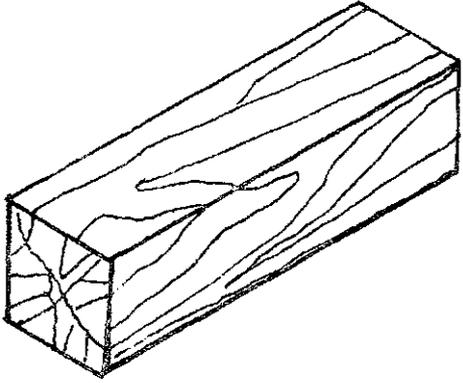
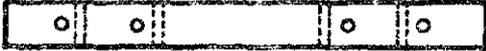
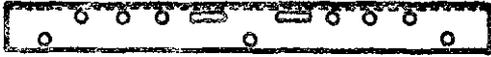
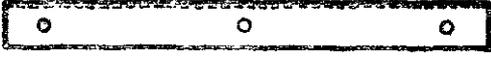
	Nombre	Ilustración
	<p>CABLE GALVANIZADO PARA RETENIDA</p>	
	<p>CONDUCTOR CONCENTRICO</p>	
	<p>CONDUCTOR PARA CONEXION A TIERRA</p>	

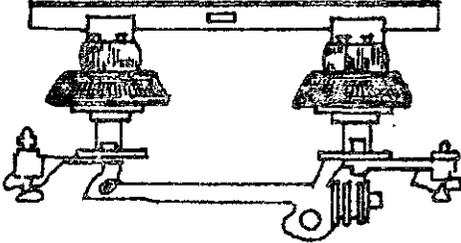
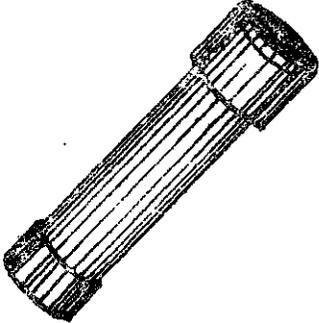
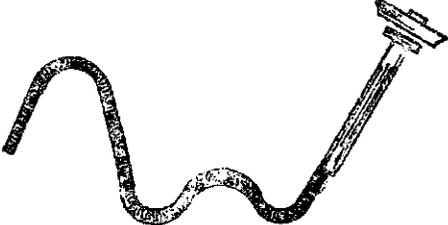
	Nombre	Ilustración
	<p>CONDUCTOR DE ALUMINIO CON ALMA DE ACERO (ACSR)</p>	
	<p>CONTRATUERCA</p>	
	<p>CORTACIRCUITO</p>	

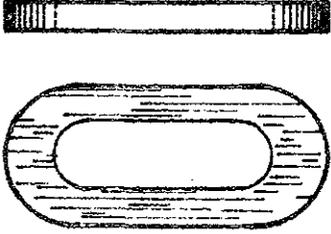
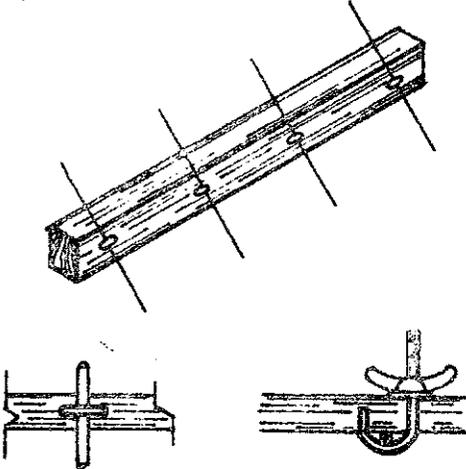
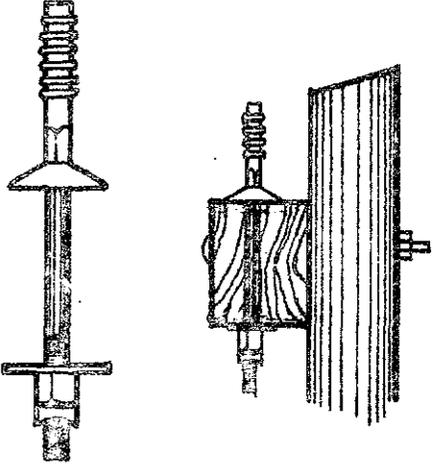
	Nombre	Ilustración
	<p>CONECTOR DE RANURAS PARALELAS</p>	
	<p>CONECTOR DE PERNO PARTIDO</p>	
	<p>CONECTOR PARA VARILLA A TIERRA</p>	

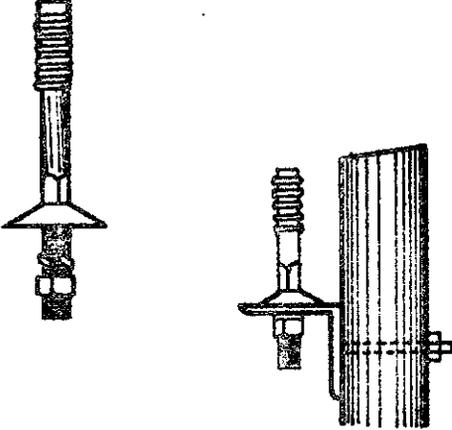
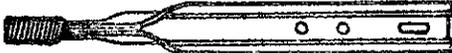
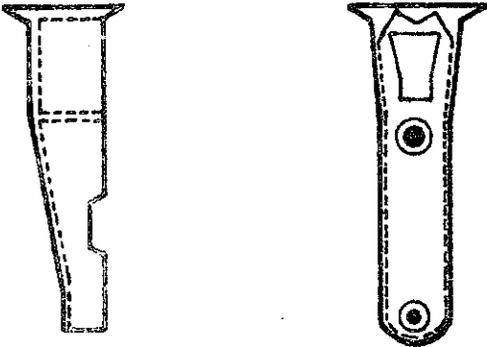
	Nombre	Ilustración
	<p>CONECTOR PARA REMATE</p>	
	<p>CONECTOR DE COMPRESION</p>	
	<p>CONECTOR DE COMPRESION (Tipo T y tipo L)</p>	

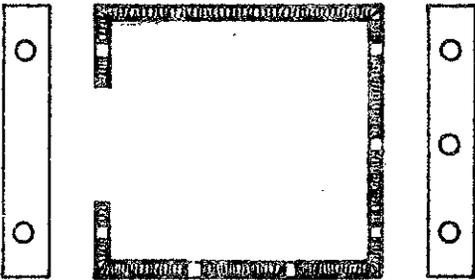
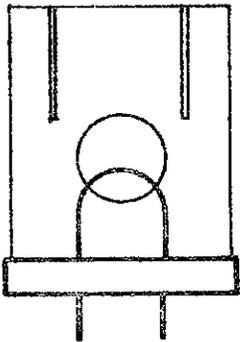
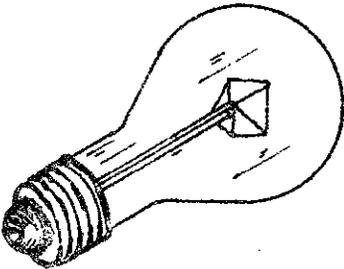
	Nombre	Ilustración
	<p>CONECTOR PARA LINEA VIVA</p>	
	<p>CLAVO</p>	
	<p>CINTA PROTECTORA DE ALUMINIO</p>	

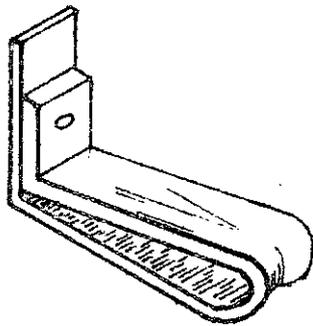
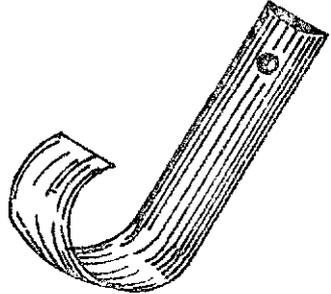
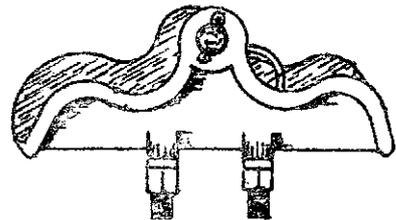
	Nombre	Ilustración
	CRUCETA DE MADERA	
	CRUCETA DE MADERA (Barrenada)	  
	CRUCETA DE ANGULO DE ACERO O DE ALUMINIO	  

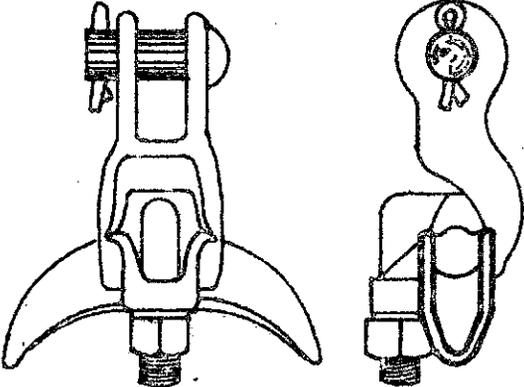
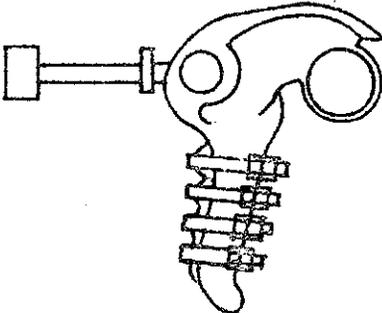
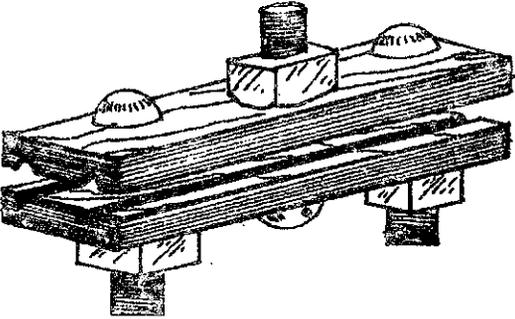
	Nombre	Ilustración
	<p>CUCHILLA SECCIONADORA</p>	
	<p>CARTUCHO FUSIBLE</p>	
	<p>ELEMENTO FUSIBLE</p>	

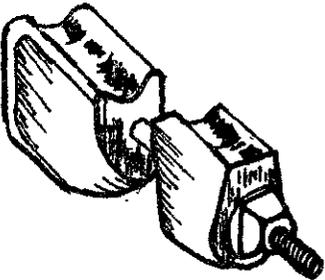
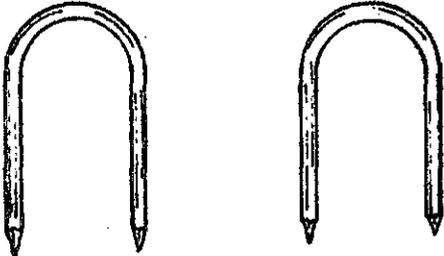
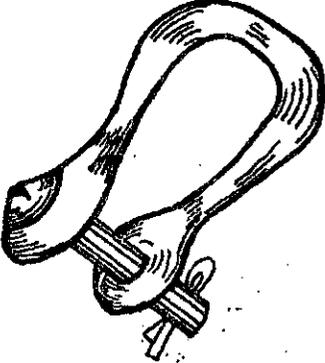
	Nombre	Ilustración
	<p><b>ESLABON</b></p>	
	<p><b>ESPACIADOR SECUNDARIO</b></p>	
	<p><b>ESPIGA PARA CRUCETA DE MADERA</b></p>	

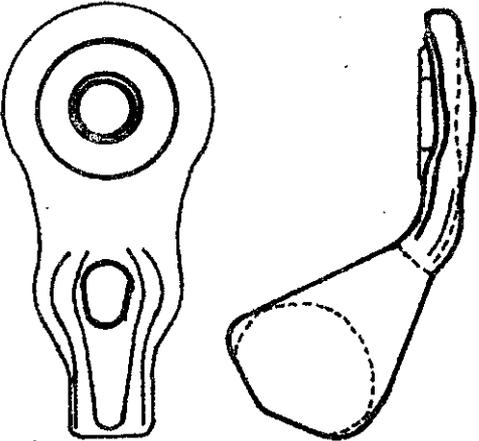
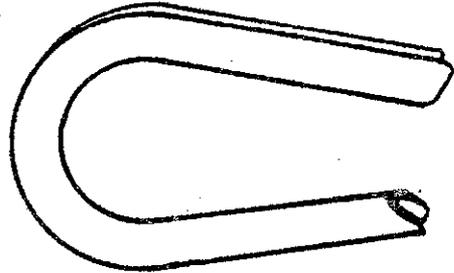
	Nombre	Ilustración
	<p>ESPIGA PARA CRUCETA DE ANGULO</p>	
	<p>ESPIGA PUNTA DE POSTE</p>	
	<p>SOPORTE PARA ESPIGA</p>	

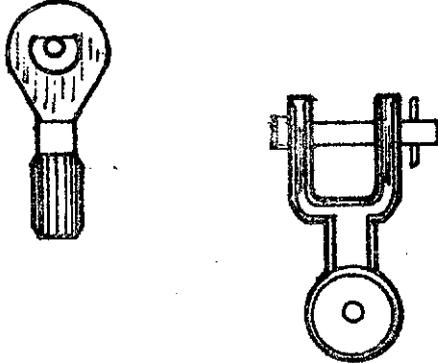
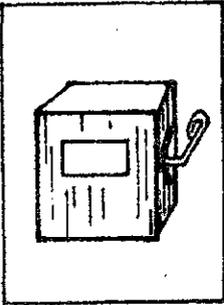
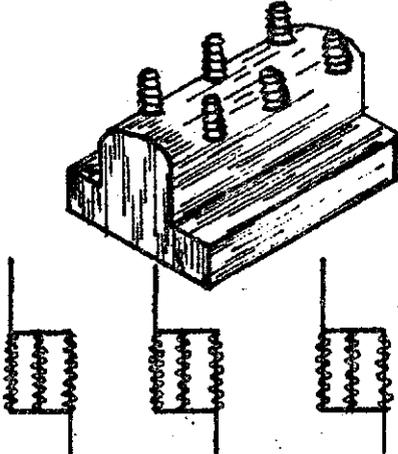
	Nombre	Ilustración
	EXTENSION PARA BASTIDOR	
	FOTOCELDA	
	FOCO INCANDESCENTE, DE MERCURIO, ETC.	

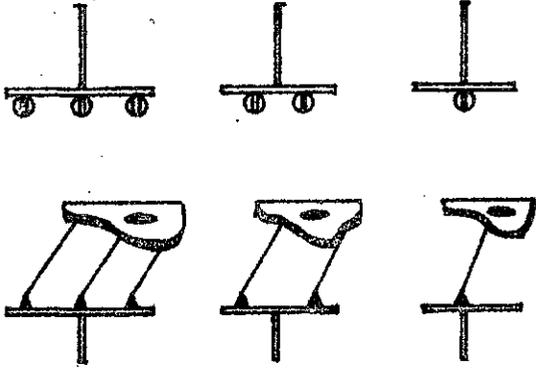
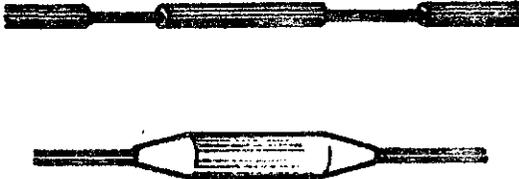
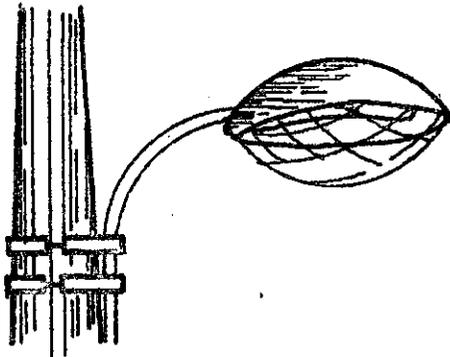
	Nombre	Ilustración
	GANCHO PARA RETENIDA	
	GANCHO PARA RETENIDA (J)	
	GRAPA DE SUSPENSION	

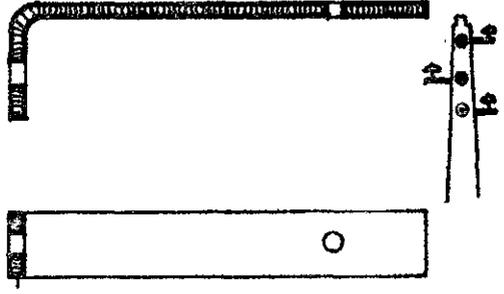
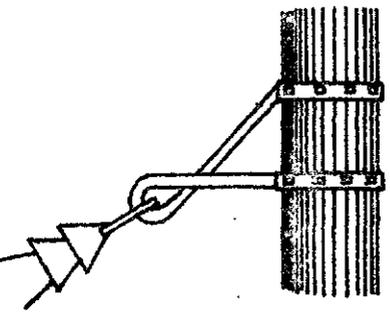
	Nombre	Descripción
	<p>GRAPA DE SUSPENSION PARA ANGULO</p>	
	<p>GRAPA DE TENSION</p>	
	<p>GRAPA DE TRES FERNOS</p>	

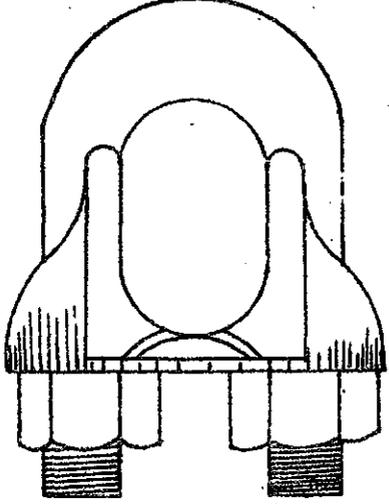
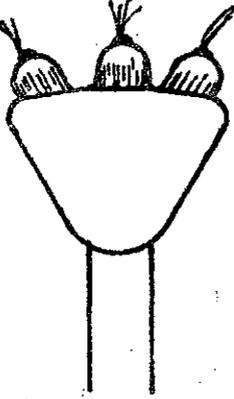
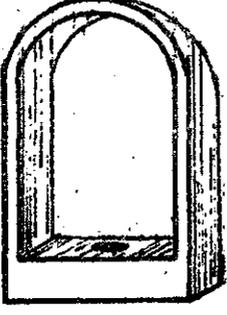
	Nombre	Ilustración
	<p>GRAPA PARA VARILLA DE ANCLAJE</p>	
	<p>GRAMPA</p>	
	<p>GRILLETE</p>	

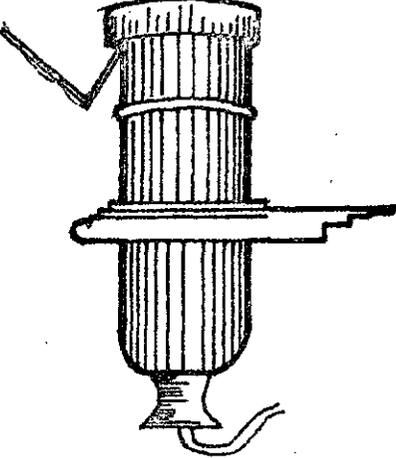
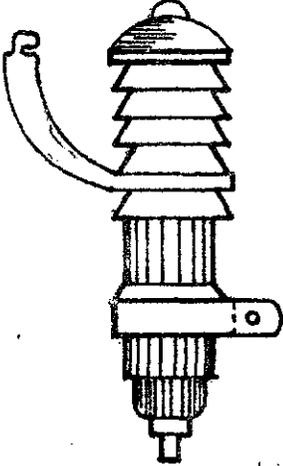
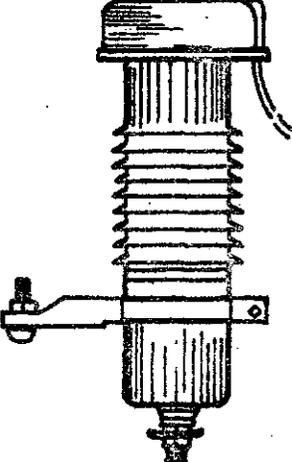
	<b>Nombre</b>	<b>Ilustración</b>
	<b>GUARDACABO DE OJO PARA RETENIDA</b>	
	<b>GUARDACABO</b>	
	<b>HORQUILLA CON GUARDACABO</b>	

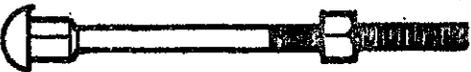
	Nombre	Ilustración
	<p><b>HORQUILLA DE OJO</b></p>	
	<p><b>INTERRUPTOR DE SEGURIDAD</b></p>	
	<p><b>INTERRUPTOR DE RECIERRE AUTOMÁTICO</b></p>	

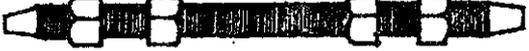
	Nombre	Ilustración
	<p>INTERRUPTOR DE CUCHILLAS</p>	
	<p>JUNTA DE EMPALME A COMPRESION</p>	
	<p>LUMINARIA</p>	

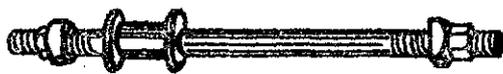
	Nombre	Ilustración
	<p>MANGUITO GUARDACABOS</p>	
	<p>MENSULA</p>	
	<p>MENSULA DE EXTENSION EN ANGULO</p>	

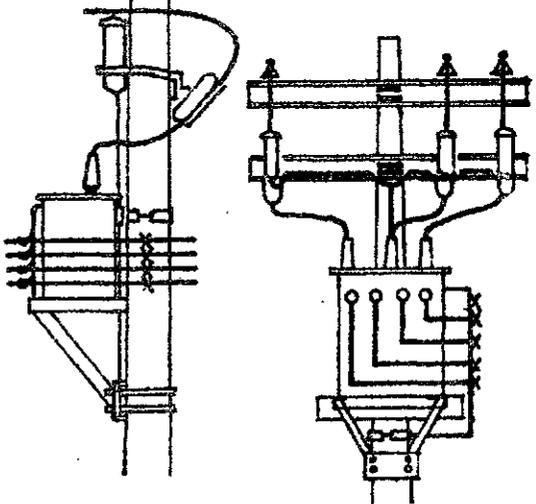
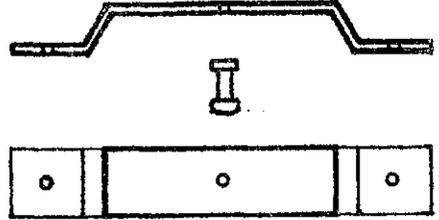
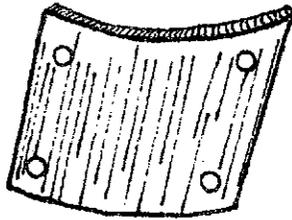
	Nombre	Ilustración
	<p>BORDAZA PARA CABLE</p>	
	<p>MUPA</p>	
	<p>OJO PARA REMATE</p>	

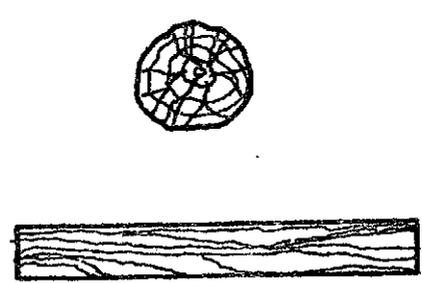
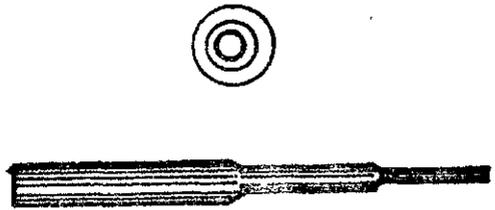
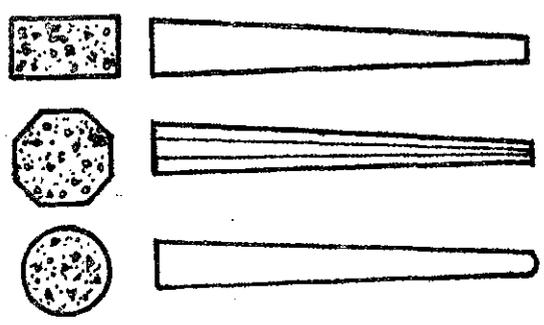
	Nombre	Ilustración
	PARARRAYOS DE DISTRIBUCION	
	PARARRAYOS DE DISTRIBUCION	
	PARARRAYOS DE DISTRIBUCION	

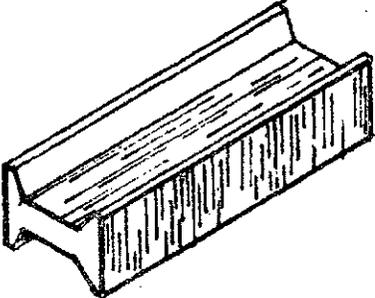
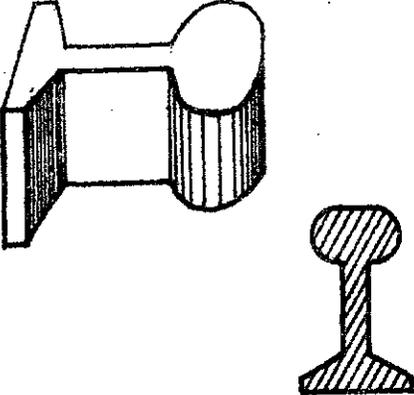
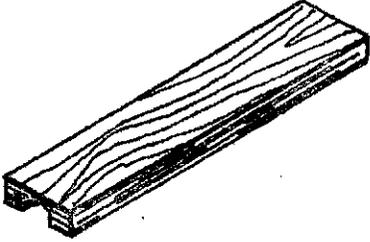
	Nombre	Ilustración
	PERNO DE CARRUAJE	
	PERNO DE MAQUINA	
	PERNO DE OJO	

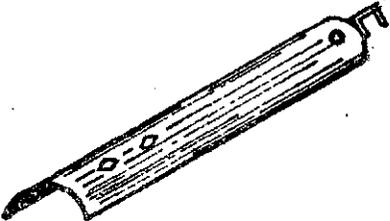
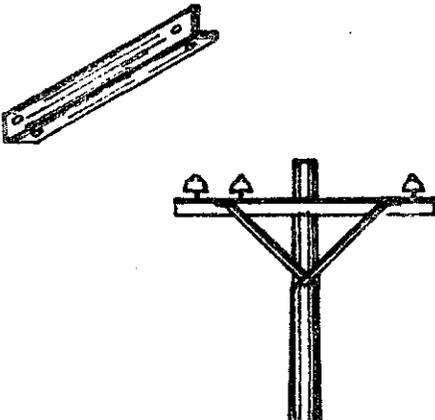
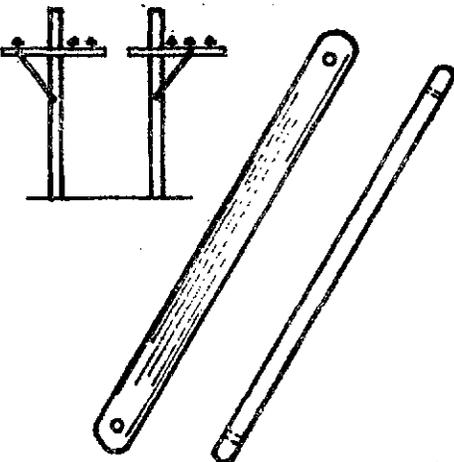
	Nombre	Ilustración
	<p>PERNO DE OJO ROSCA CORRIDA</p>	
	<p>PERNO DOBLE ROSCA</p>	
	<p>PERNO ROSCA CORRIDA</p>	

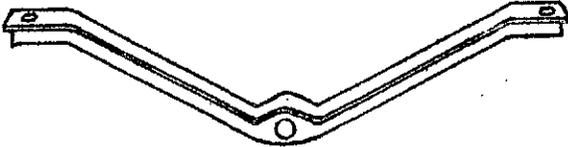
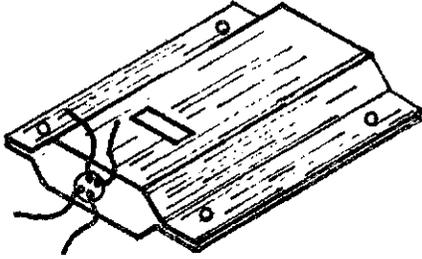
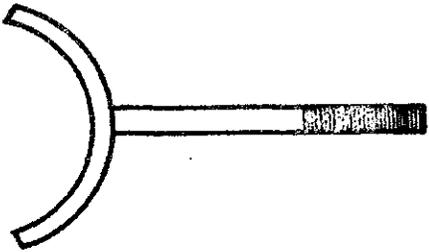
	Nombre	Ilustración
	<p><b>PERNO GUARDACABO PARA RETENIDA</b></p>	
	<p><b>PERNO PARA SOPORTE SECUNDARIO</b></p>	
	<p><b>PERNO PARA SOPORTE SECUNDARIO (Doble tope)</b></p>	

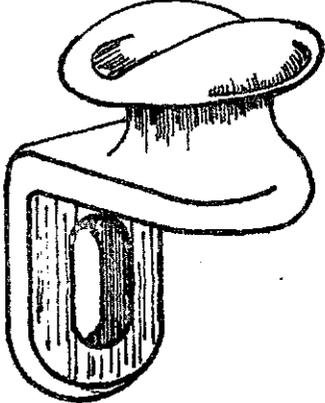
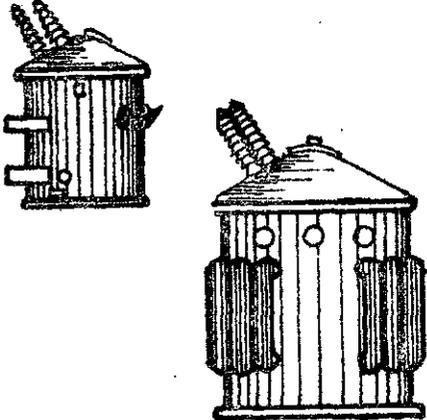
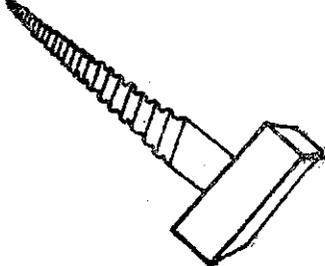
	Nombre	Ilustración
	<p>PLATAFORMA PARA TRANSFORMADORES</p>	
	<p>PLATINA PARA TRANSFORMADORES</p>	
	<p>PLACA PARA RETENIDA</p>	

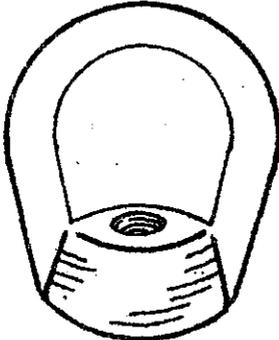
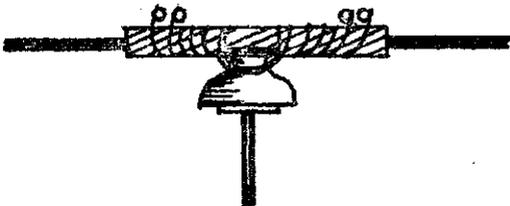
	<p>POSTE DE MADERA</p>	
	<p>POSTE DE ACERO TUBULAR</p>	
	<p>POSTE DE CONCRETO</p>	

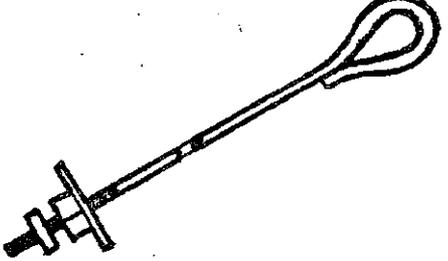
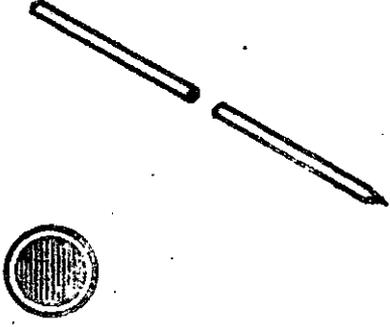
	Nombre	Ilustración
	<p>POSTE DE ACERO O ALUMINIO EN I O EN H</p>	
	<p>POSTE DE RIEL</p>	
	<p>PROTECTOR PARA BAJADA A TIERRA</p>	

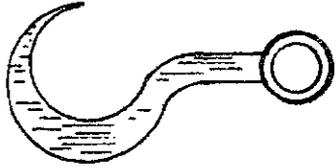
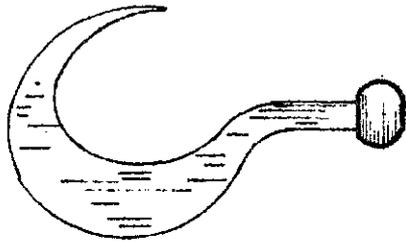
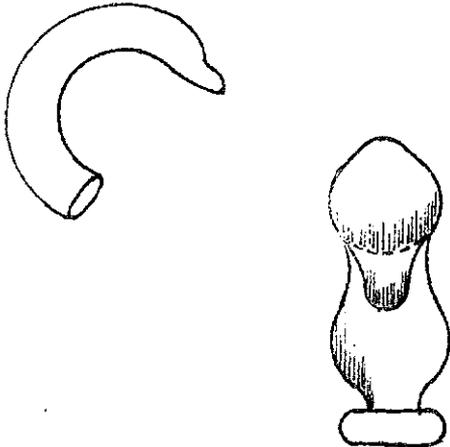
	Nombre	Ilustración
	<p>PROTECTOR PARA RETENIDA</p>	
	<p>PUNTAL ANGULAR</p>	
	<p>PUNTAL DE PLATINA</p>	

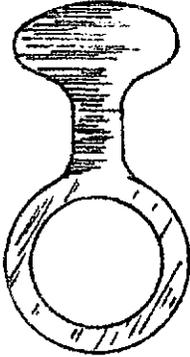
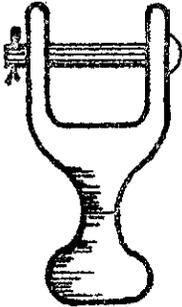
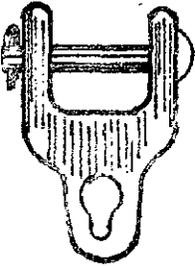
	Nombre	Ilustración
	<p>PUNTAL DOBLE</p>	
	<p>RELEVADOR DE ALUMBRADO</p>	
	<p>SEPARADOR DE TRANSFORMADOR</p>	

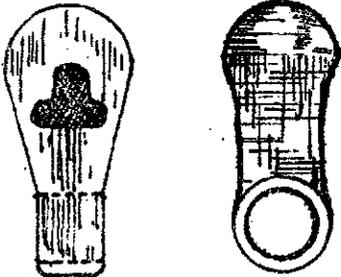
	Nombre	Ilustración
	SOPORTE DE NEUTRO	
	TRANSFORMADOR DE DISTRIBUCION	
	TORNILLO COLOSO	

	Nombre	Ilustración
	<p>TUERCA DE OJO</p>	
	<p>VARILLAS PROTECTORAS FORMADAS</p>	
	<p>VARILLAS FORMADAS PARA EMPALME</p>	

	Nombre	Ilustración
	<p><b>VARILLAS FORMADAS PARA REMATE</b></p>	
	<p><b>VARILLA PARA ANCLAJE</b></p>	
	<p><b>VARILLA PARA TIERRA</b></p>	

	Nombre	Ilustración
	GANCHO DE OJO	
	GANCHO DE BOLA	
	GANCHO DE BOLA	

	Nombre	Ilustración
	BOLA Y OJO	 A technical drawing of a ball and eye joint. It consists of a circular eye-shaped part with a central hole, connected to a spherical ball. The ball has a textured surface with horizontal lines. The eye part has a circular opening in the center.
	HORQUILLA DE BOLA	 A technical drawing of a ball fork. It features a central horizontal shaft with a small pin or screw on the left end. Two curved arms extend upwards from the shaft, forming a U-shape. The bottom of the fork is a rounded, bulbous shape.
	HORQUILLA DE ROTULA	 A technical drawing of a ball fork, similar to the one above but with a different bottom shape. It has a central horizontal shaft with a pin on the left. Two curved arms extend upwards. The bottom part is a rounded shape with a small, irregular hole or notch at the very bottom.

	Nombre	Ilustración
	<p>ROTULA DE OJO</p>	
	<p>REFUERZO EN X</p>	