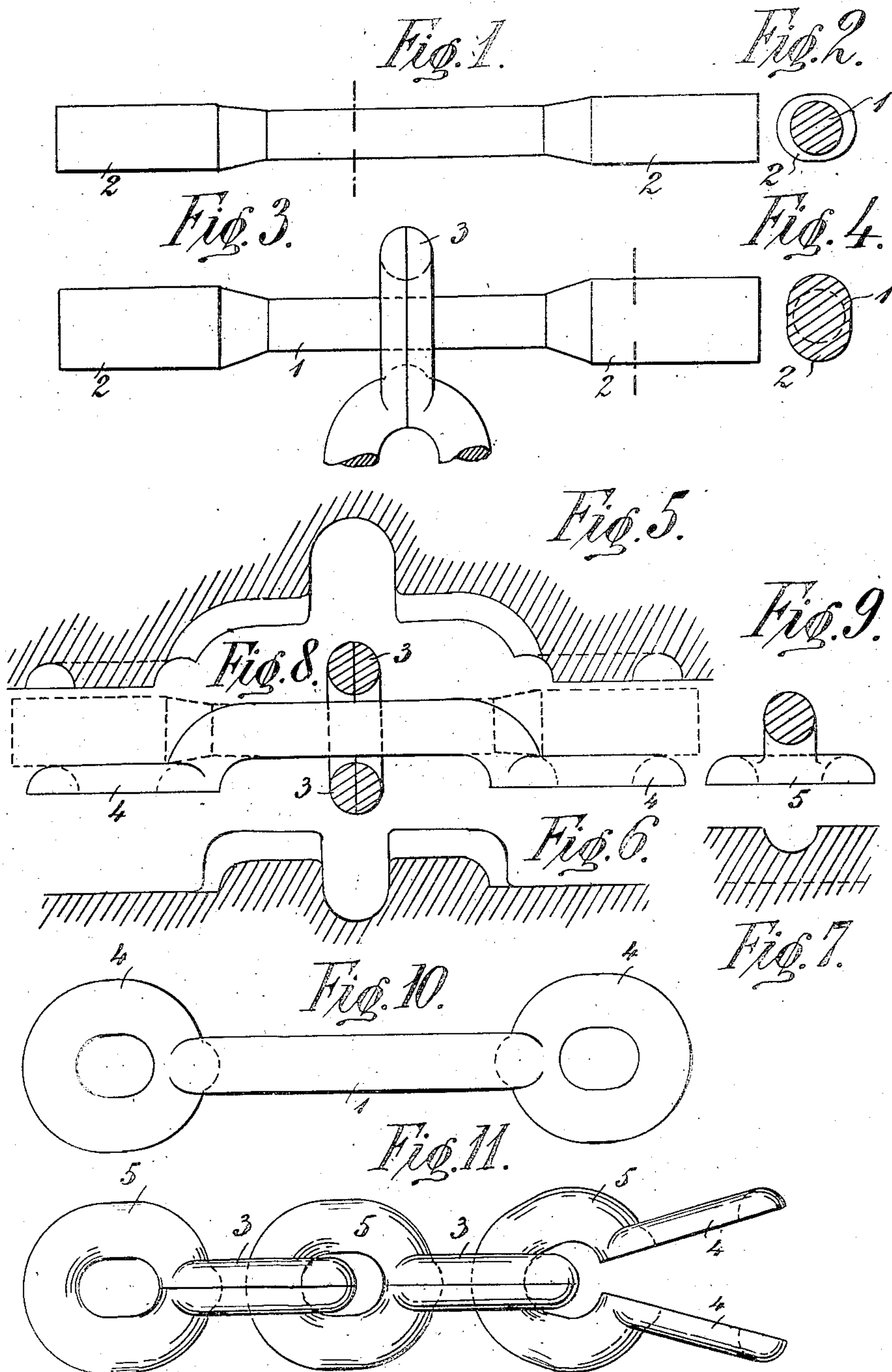


No. 844,006.

PATENTED FEB. 12, 1907.

S. K. v. ECSEGHY.
PROCESS OF MAKING UNWELDED CHAINS.
APPLICATION FILED JUNE 2, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

STEFAN KISS V. ECSEGHY, OF VIENNA, AUSTRIA-HUNGARY, ASSIGNOR TO
THE FIRM OF HANDELSGESELLSCHAFT KLEINBERG & CO., OF VIENNA,
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PROCESS OF MAKING UNWELDED CHAINS.

No. 844,006.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed June 2, 1906. Serial No. 319,954.

To all whom it may concern:

Be it known that I, STEFAN KISS VON ECSEGHY, residing at Vienna, Empire of Austria, have invented certain new and useful
5 Improvements in the Process of Manufacturing Unwelded Chains; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to a process for manufacturing the well-known unwelded chains composed of links, each of which consists of two eyes crossing each other at right
15 angles.

The object of my invention is to so improve the process for manufacturing such chains that the links of the chain produced thereby may be much shorter than those of
20 chains of that class manufactured by processes hitherto known.

In the accompanying drawings, Figure 1 is a side elevation, and Fig. 2 a central transverse section, of a blank for making a chain-link according to this invention. Fig. 3 is a
25 plan view, and Fig. 4 is a transverse section, of an end of the blank. Fig. 5 is a vertical section of the upper die, and Fig. 6 is a vertical section of the lower die for operating
30 upon the blank. Fig. 7 is a transverse section of the lower die. Fig. 8 shows in side elevation, Fig. 9 in central transverse section, and Fig. 10 in plan view, the blank after having been operated upon by the dies shown
35 in Figs. 5, 6, and 7. Fig. 11 shows a part of a chain made by the present process.

The blanks from which chain-links are made by the present process consist of straight rods, the central portion 1 of which
40 has the transverse section of the links to be made, while the ends are thickened. The blank is threaded into an eye 3 of a link already made, as shown in Fig. 3, and is then put together with the said eye into a press, the
45 upper die of which is shown in Fig. 5, while the lower die is shown in Figs. 6 and 7. The blank on being placed into the press occupies the position shown in dotted lines in Fig. 8. By the action of these dies the central por-
50 tion 1 of the blank is bent at its ends, and the end portions 2 are shaped to two equal rings 4, situated in one plane and flat on one side,

as shown in Fig. 8 in full lines and in Figs. 9 and 10. Then the central portion 1 of the blank is so bent in any suitable manner so
55 that it forms an eye 5, and the rings 4 at its ends are laid upon each other with their flat sides fitting each other exactly. The two rings 4 thus form an eye 3, crossing the eye 5 at right angles, as shown in Fig. 11. The
60 fresh link is then complete, and a blank can be threaded through its eye 3, formed by the rings 4, from which blank the next link may be formed as above described.

The length and thickness of the end por-
65 tions 2 of the blank must be so proportioned that they offer the quantity of material required for forming the rings 4, and these rings must be of sufficient size for permitting the thickened end portions of the blank to be
70 threaded through them. The object of thickening the end portions 2 of the blank (as compared with the central portion 1) is to favorably arrange the material for forming the rings 4. As in this improved process
75 only the thickened ends 2 of the blank have to be threaded through the eyes 3 the opening of the latter may be much smaller than is the case with the methods heretofore used for making chains of this class, in which
80 old methods through the eye 3 of a completed link a ring 4, constituting one-half of the eye 3 of the next link, had to be passed. Therefore this new process permits to make the
85 links of the chain much shorter than was the case with the old methods. The eyes 3 might be further diminished, and thus the links further shortened if the blanks were made cylindrical or of uniform transverse
90 section throughout and their ends were thickened by jumping or upsetting after having been passed through the eye 3 of the last-completed link. In this case the eye 3 might be made circular in shape.

I claim—

1. A process for manufacturing unwelded
95 chains, the links of which consist each of two eyes crossing each other at right angles, such process consisting in threading through an eye of a completed link, a blank then form-
100 ing each end portion of such blank into a ring, such rings being on a plane substantially parallel to the central portion of the blank and finally bending the central portion

of the blank until the said rings are brought into coincidence and contact with each other, substantially as and for the purpose described.

2. A process for manufacturing unwelded chains, the links of which consist each of two eyes crossing each other at right angles, such process consisting in threading through an eye of a completed link, a blank, then jumping the end portions of such blanks whereby they are thickened, then forming each end portion of such blank into a ring, such rings being on a plane, substantially parallel to the

central portion of the blank and finally bending the central portion of the blank until the said rings are brought into coincidence and contact with each other, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

STEFAN KISS V. ECSEGHY.

Witnesses:

ARTHUR BAUMANN;
ALVESTO S. HOGUE.