

FIG. 1

	ALLOY NO.	ALLOY COMPOSITION (mass%)											Zn/Cu RATIO	COMPOSITION INDEX f1
		Cu	Zn	Ni	Pb	C	Mn	Al	P	Sb	Mg	As		
FIRST ALLOY ACCORDING TO PRESENT INVENTION	1	53.5	35.9	10.6	0.005	0.0012							0.67	66.2
	2	54.1	35.1	10.8	0.0006	0.0004							0.65	67.1
	3	54.5	34.4	11.1	0.010	0.0017							0.63	67.8
	4	51.7	36.2	12.1	0.014	0.0004							0.70	66.2
	5	55.8	33.4	10.8	0.006	0.0015							0.60	68.8
	6	56.2	33.5	10.3	0.005	0.0025							0.60	68.6
	7	57.1	32.7	10.2	0.008	0.0026							0.57	69.3
	8	51.1	36.5	12.4	0.028	0.0091							0.71	66.0
	9	57.8	32.9	9.3	0.0013	0.0006							0.57	69.0
	10	53.0	36.5	10.5	0.012	0.0031							0.69	65.6
	11	52.8	35.7	11.5	0.002	0.0018							0.68	66.6
	12	54.6	34.7	10.7	0.0011	0.007							0.64	67.4
SECOND ALLOY ACCORDING TO PRESENT INVENTION	13	51.1	36.3	11.8	0.018	0.0051	0.8						0.71	65.6
	14	51.3	36.1	12.1	0.008	0.0017	0.5						0.70	66.0
	15	51.9	34.6	12.0	0.011	0.0005	1.5						0.67	66.9
	16	53.1	35.7	10.7	0.005	0.0018	0.5						0.67	66.1
	17	53.4	35.4	10.8	0.008	0.0025	0.4						0.66	66.5
	18	53.4	35.1	10.9	0.005	0.0075	0.6						0.66	66.7
	19	53.6	35.5	10.7	0.009	0.0030	0.2						0.66	66.5
	20	54.0	35.0	10.4	0.012	0.0021	0.6						0.65	66.7
	21	54.0	34.6	10.9	0.028	0.0012	0.5						0.64	67.3
	22	54.1	34.0	11.4	0.006	0.0031	0.5						0.63	68.0
	23	54.1	33.7	11.6	0.008	0.0095	0.6						0.62	68.3
	24	54.1	33.1	12.2	0.006	0.0018	0.6						0.61	69.0
	25	54.5	33.5	11.4	0.007	0.0015	0.6						0.61	68.4
	26	55.4	34.6	9.5	0.004	0.0009	0.5						0.62	67.0
	27	55.6	33.3	10.6	0.008	0.0010	0.5						0.60	68.5
	28	56.3	32.9	10.3	0.009	0.0016	0.5						0.58	68.9
	29	56.9	31.4	9.9	0.001	0.0032	1.8						0.55	69.5
	30	57.5	31.9	10.0	0.002	0.0017	0.6						0.55	69.7
	31	54.3	34.6	10.6	0.004	0.0009	0.5						0.64	67.2
	32	52.8	35.2	11.4	0.003	0.0007	0.6						0.67	66.7
THIRD ALLOY ACCORDING TO PRESENT INVENTION	33	52.9	35.1	11.4	0.012	0.0035	0.5	0.12					0.66	66.8
	34	54.2	34.0	11.2	0.009	0.0013	0.5	0.09					0.63	67.8
	35	55.5	33.0	10.8	0.008	0.0031	0.6		0.06				0.60	68.7
	36	53.5	35.1	10.9	0.01	0.0061	0.5			0.03			0.66	66.8
	37	54.2	34.0	11.3	0.01	0.0011	0.5				0.012		0.63	68.0
	38	52.4	36.0	11.0	0.007	0.0029	0.6					0.03	0.69	65.8
	39	54.1	34.4	10.8	0.01	0.0016	0.5	0.15		0.03	0.01		0.64	67.3
	40	54.3	34.5	10.2	0.008	0.002	0.9	0.11	0.03				0.63	66.9
	41	54.0	34.7	10.5	0.009	0.0015	0.6	0.10	0.04				0.64	66.8

FIG. 2

[illegible]

FIG. 3

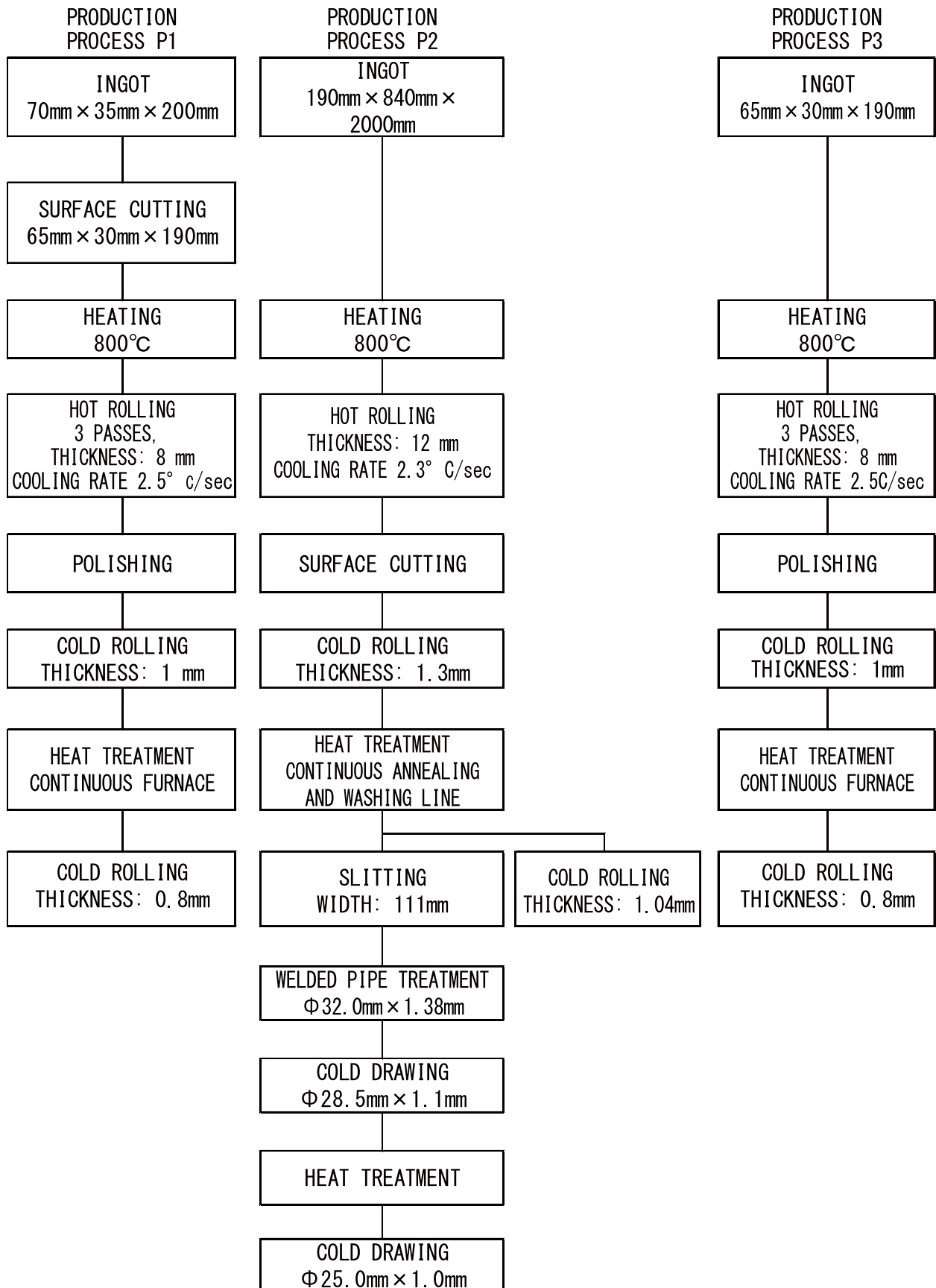


FIG. 4

ALLOY NO.	PRODUCTION PROCESS	TEST NO.	20% COLD-ROLLED MATERIAL		HOT ROLLING	HEAT TREATMENT				HOT WORKABILITY	COLD WORKABILITY	TENSILE TEST (AFTER HEAT TREATMENT)		TENSILE TEST (20% COLD-ROLLED MATERIAL)			
			AREA RATIO (%) OF β PHASES	GRAIN SIZE (μm)		COOLING RATE IN 400°C TO 500°C (°C/sec)	MAXIMUM ACHIEVED TEMPERATURE T_{max} (°C)	RETENTION TIME(h:min)	HEAT TREATMENT INDEX I_t			COOLING RATE IN 400°C TO 500°C (°C/sec)	STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX f_2	STRENGTH (N/mm ²)	ELONGATION (%)
FIRST ALLOY ACCORDING TO PRESENT INVENTION EX.	1	A-1	0.3	6	2.5	705	0.3	541	2.5	A	A	471	38	650	587	18	693
	2	A-2	0.0	5	2.5	705	0.3	541	2.5	A	A	476	45	690	595	21	720
	3	A-3	0.0	5	2.5	705	0.3	541	2.5	A	A	484	49	721	594	22	725
	4	A-4	0.6	9	2.5	705	0.3	541	2.5	A	B	471	40	659	580	14	661
	5	A-5	0.0	8	2.5	705	0.3	541	2.5	A	A	475	47	698	589	21	713
	6	A-6	0.0	12	2.5	705	0.3	541	2.5	A	A	469	42	666	584	20	701
	7	A-7	0.0	14	2.5	705	0.3	541	2.5	B	A	464	40	650	575	18	679
	8	A-8	0.9	7	2.5	705	0.3	541	2.5	B	B	485	35	655	587	11	652
	9	A-9	0.0	17	2.5	705	0.3	541	2.5	B	A	460	43	658	579	17	677
	10	A-10	0.6	12	2.5	705	0.3	541	2.5	B	B	483	36	657	586	12	656
	11	A-11	0.8	9	2.5	705	0.3	541	2.5	B	B	480	37	658	591	11	656
FIRST ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	101	A-101	-	-	2.5	-	-	-	-	A	C	-	-	-	-	-	-
	102	A-102	-	-	2.5	-	-	-	-	A	C	-	-	-	-	-	-
	103	A-103	0.2	8	2.5	705	0.3	541	2.5	B	B	490	37	671	597	17	698
	104	A-104	-	-	2.5	-	-	-	-	B	C	-	-	-	-	-	-
	105	A-105	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-
	106	A-106	0.0	9	2.5	705	0.3	541	2.5	B	B	448	43	641	560	15	644
	107	A-107	0.0	21	2.5	705	0.3	541	2.5	A	A	430	45	624	535	20	642
	108	A-108	0.2	10	2.5	705	0.3	541	2.5	A	A	451	41	636	562	14	641
	13	A-13	0.8	8	2.5	705	0.3	541	2.5	A	B	482	39	670	595	14	678
	14	A-14	0.7	8	2.5	705	0.3	541	2.5	A	B	477	37	653	591	15	680
	15	A-15	0.3	7	2.5	705	0.3	541	2.5	A	B	494	42	701	610	16	708
SECOND ALLOY ACCORDING TO PRESENT INVENTION EX.	16	A-16	0.3	10	2.5	705	0.3	541	2.5	A	A	489	38	675	602	15	692
	17	A-17	0.0	8	2.5	705	0.3	541	2.5	A	A	491	45	712	610	23	750
	18	A-18	0.0	7	2.5	705	0.3	541	2.5	A	A	502	50	753	618	23	760
	19	A-19	0.0	8	2.5	705	0.3	541	2.5	A	A	501	50	752	620	23	763
	20	A-20	0.0	7	2.5	705	0.3	541	2.5	A	A	505	47	742	629	23	774
	21	A-21	0.0	8	2.5	705	0.3	541	2.5	A	B	503	44	724	618	20	742
	22	A-22	0.0	9	2.5	705	0.3	541	2.5	A	A	500	49	745	618	24	766
	23	A-23	0.0	7	2.5	705	0.3	541	2.5	B	B	495	47	728	615	21	744
	24	A-24	0.2	8	2.5	705	0.3	541	2.5	B	A	491	43	702	607	20	728
	25	A-25	0.0	8	2.5	705	0.3	541	2.5	A	B	500	45	725	616	18	727
	26	A-26	0.0	8	2.5	705	0.3	541	2.5	A	A	479	42	680	571	17	668

FIG. 5

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	BENDABILITY	WELDABILITY		PRESS PROPERTY	BACTERICIDAL PROPERTY 1	BACTERICIDAL PROPERTY 2	COLOR FASTNESS TEST 1	COLOR FASTNESS TEST 2	CORROSION RESISTANCE	N! ALLERGY RESISTANCE	WELDED PIPE (DRAWING)			
					FLATTENING TEST	COLD DRAWING								STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX #2	
FIRST ALLOY ACCORDING TO PRESENT INVENTION EX.	1	P1	a-1	B			A	A	A	B	B	A	A				
	2		a-2	A			B	A	A	A	A	A	A	A			
	3		a-3	A			A	A	A	A	A	A	A	A			
	4		a-4	B			B	A	A	B	B	B	A				
	5		a-5	A			B	B	A	B	B	B	A				
	6		a-6	A			B	A	B	B	B	B	A				
	7		a-7	A			B	B	B	B	B	A	A				
	8		a-8	B			A	B	B	B	B	B	A				
	9		a-9	A			B	B	B	B	B	A	A				
	10		a-10	B			B	B	B	B	B	B	A				
	11		a-11	B			B	B	B	B	B	B	A				
101	a-101		-			-	-	-	-	-	-	-					
102	a-102		-			-	-	-	-	-	-	-					
103	a-103		A			C	A	A	A	A	B	B	A				
104	a-104		-			-	-	-	-	-	-	-					
105	a-105		-			-	-	-	-	-	-	-					
106	a-106		A			C	B	B	B	B	B	C	A				
107	a-107		A			C	B	B	B	B	B	C	A				
108	a-108		B			B	B	B	B	B	C	B	A				
13	a-13		B			A	B	B	B	B	B	B	A				
14	a-14		B			A	B	B	B	B	B	A	A				
15	a-15		B			A	A	A	A	B	B	A	A				
16	a-16		A			B	A	A	A	A	A	A	A				
17	a-17		A			A	A	A	A	A	A	A	A	A			
18	a-18		A			A	A	A	A	A	A	A	A				
19	a-19		A			A	A	A	A	A	A	A	A				
20	a-20	A			A	A	A	A	A	A	A	A					
21	a-21	B			A	A	A	A	A	A	A	A					
22	a-22	A			A	A	A	A	A	A	A	A					
23	a-23	B			A	A	A	A	A	A	B	A					
24	a-24	B			A	A	A	A	A	B	A	A					
25	a-25	B			A	A	A	A	A	B	B	A					
26	a-26	A			B	A	A	A	A	B	B	A	A				
SECOND ALLOY ACCORDING TO PRESENT INVENTION EX.																	
FIRST ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.																	
FIRST ALLOY ACCORDING TO PRESENT INVENTION EX.																	

FIG. 6

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	20% COLD-ROLLED MATERIAL		HOT ROLLING	HEAT TREATMENT				HOT WORKABILITY	COLD WORKABILITY	TENSILE TEST (AFTER HEAT TREATMENT)			TENSILE TEST (20% COLD-ROLLED MATERIAL)		
				AREA RATIO (%) OF β PHASES	GRAIN SIZE (μm)		MAXIMUM ACHIEVED TEMPERATURE T_{max} ($^{\circ}\text{C}$)	RETENTION TIME (min)	HEAT TREATMENT INDEX I_{H}	COOLING RATE IN 400°C TO 500°C ($^{\circ}\text{C}/\text{sec}$)			STRENGTH (N/mm^2)	ELONGATION (%)	TENSILE INDEX f_{t}	STRENGTH (N/mm^2)	ELONGATION (%)	TENSILE INDEX f_{t}
SECOND ALLOY ACCORDING TO PRESENT INVENTION EX.	27	P1	a-27	0.0	10	2.5	705	0.3	541	2.5	A	A	490	42	696	604	20	725
	28		a-28	0.0	10	2.5	705	0.3	541	2.5	B	A	465	47	684	587	24	728
	29		a-29	0.0	13	2.5	705	0.3	541	2.5	A	A	465	45	674	584	17	683
	30		a-30	0.0	13	2.5	705	0.3	541	2.5	A	A	469	46	685	578	17	676
	109		a-109	1.6	6	2.5	705	0.3	541	2.5	A	C	479	32	632	598	12	670
	110		a-110	-	-	2.5	-	-	-	-	B	C	-	-	-	-	-	-
	111		a-111	-	-	2.5	-	-	-	-	B	C	-	-	-	-	-	-
	112		a-112	0.0	8	2.5	705	0.3	541	2.5	B	B	470	37	644	577	12	646
	113		a-113	0.1	10	2.5	705	0.3	541	2.5	A	A	494	40	692	604	14	689
	114		a-114	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-
SECOND ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	115		a-115	-	-	2.5	-	-	-	-	B	C	-	-	-	-	-	-
	116		a-116	0.0	8	2.5	705	0.3	541	2.5	A	A	478	43	684	597	19	710
	117		a-117	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-
	118		a-118	0.0	12	2.5	705	0.3	541	2.5	A	A	494	48	731	615	20	738
	119		a-119	0.0	15	2.5	705	0.3	541	2.5	A	A	451	44	649	569	18	671
	120		a-120	0.0	16	2.5	705	0.3	541	2.5	A	A	451	41	636	563	15	647
	33		a-33	0.2	9	2.5	705	0.3	541	2.5	A	A	503	43	719	620	17	725
	34		a-34	0.0	9	2.5	705	0.3	541	2.5	A	A	505	47	742	626	19	745
	35		a-35	0.0	8	2.5	705	0.3	541	2.5	A	A	488	45	708	580	21	702
	36		a-36	0.0	8	2.5	705	0.3	541	2.5	A	A	499	48	739	617	25	771
THIRD ALLOY ACCORDING TO PRESENT INVENTION EX.	37		a-37	0.0	8	2.5	705	0.3	541	2.5	A	A	497	46	726	617	20	740
	38		a-38	0.6	7	2.5	705	0.3	541	2.5	A	B	485	38	669	602	11	668
	39		a-39	0.0	8	2.5	705	0.3	541	2.5	A	A	509	45	738	624	18	736
	40		a-40	0.0	12	2.5	705	0.3	541	2.5	A	A	506	43	724	621	18	733
	121		a-121	0.0	8	2.5	705	0.3	541	2.5	A	A	515	45	747	632	17	739
	122		a-122	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-
	123		a-123	0.0	9	2.5	705	0.3	541	2.5	A	B	470	27	597	578	8.5	627
	124		a-124	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-
	COMP. EX. C7060		a-1001	0.0			705	0.3	541	2.5		A	310	42	440	415	14	473
	COMP. EX. C7521		a-1002	0.0			705	0.3	541	2.5		A	420	35	567	580	5	609
	COMP. EX. C2680		a-1003	0.1			705	0.3	541	2.5		A	315	55	488	473	13	534

FIG. 7

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	BENDABILITY	WELDABILITY		PRESS PROPERTY	BACTERICIDAL PROPERTY 1	BACTERICIDAL PROPERTY 2	COLOR FASTNESS TEST 1	COLOR FASTNESS TEST 2	CORROSION RESISTANCE	N! ALLERGY RESISTANCE	WELDED PIPE (DRAWING)		
					FLATTENING TEST	COLD DRAWING								STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX #2
SECOND ALLOY ACCORDING TO PRESENT INVENTION EX.	27	P1	a-27	A			B	A	A	A	A	A				
	28		a-28	A			B	A	B	A	B	A				
	29		a-29	A			C	A	A	A	B	A				
	30		a-30	A			B	A	B	A	A	A				
SECOND ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	109		a-109	D			A	B	B	C	C	C	C			
	110		a-110	-			-	-	-	-	-	-	-			
	111		a-111	-			-	-	-	-	-	-	-			
	112		a-112	A			C	B	B	B	B	A				
	113		a-113	A			C	A	A	A	A	A				
	114		a-114	-			-	-	-	-	-	-	-			
	115		a-115	-			-	-	-	-	-	-	-			
	116		a-116	A			A	A	A	A	B	A				
	117		a-117	-			-	-	-	-	-	-	-			
	118		a-118	A			C	A	A	A	B	A				
	119		a-119	A			B	B	C	B	C	A				
	120		a-120	A			C	B	B	A	B	A				
THIRD ALLOY ACCORDING TO PRESENT INVENTION Ex.	33		a-33	A			A	A	A	A	A	A				
	34		a-34	A			A	A	A	A	A	A				
	35		a-35	A			B	A	A	A	A	A				
	36		a-36	A			A	A	A	A	A	A				
	37		a-37	A			A	A	A	A	A	A				
	38		a-38	A			A	A	B	A	A	A				
	39		a-39	A			A	A	A	A	A	A	A			
	40		a-40	A			A	A	A	A	A	A				
	121		a-121	A			A	B	C	A	A	A				
	122		a-122	-			-	-	-	-	-	-	-			
THIRD ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	123		a-123	D			A	A	A	A	A	A				
	124		a-124	-			-	-	-	-	-	-	-			
	COMP. Ex. C7060		a-1001	A			C	B	C	B	B	A	C			
	COMP. Ex. C7521		a-1002	A			B	B	B	B	A	A	C			
COMP. Ex. C2680			a-1003	A			C	B	B	A	C	C	-			

FIG. 8

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	20% COLD-ROLLED MATERIAL		HOT ROLLING	HEAT TREATMENT				HOT WORKABILITY	COLD WORKABILITY	TENSILE TEST (AFTER HEAT TREATMENT)			TENSILE TEST (20% COLD-ROLLED MATERIAL)		
				AREA RATIO (%) OF β PHASES	GRAIN SIZE (μm)		COOLING RATE IN 400°C TO 500°C (°C/sec)	MAXIMUM ACHIEVED TEMPERATURE (°C)	RETENTION TIME (min)	HEAT TREATMENT INDEX It			COOLING RATE IN 400°C TO 500°C (°C/sec)	STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX f ₂	STRENGTH (N/mm ²)	ELONGATION (%)
FIRST ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE EX.	12	P2	b-1	0.0	6	2.3	705	0.25	525	2.3	A	A	506	47	744	620	21	750
			b-2	0.0	12	2.3	705	0.5	578	2.3	A	A	470	46	686	571	20	685
	b-3		0.0	6	2.3	705	0.25	525	2.3	A	A	510	44	734	625	24	775	
SECOND ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE EX.	31		b-4	0.0	9	2.3	680	0.5	553	2.3	A	A	496	53	759	617	21	747
			b-5	0.0	8	2.3	705	0.25	525	2.3	A	A	515	48	762	630	22	769
	32		b-6	0.1	14	2.3	705	0.5	578	2.3	A	A	467	45	677	579	23	712
41			b-7	0.0	7	2.3	705	0.25	525	2.3	A	A	530	40	742	646	19	769
	b-8		0.0	14	2.3	720	0.5	593	2.3	A	A	510	45	740	634	20	761	
FIRST ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPECOMP. EX.	12		b-101	1.6	10	2.3	720	0.25	540	0.3	A	A	481	33	640	593	11	658
SECOND ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE COMP. EX.	31		b-102	1.5	8	2.3	730	0.25	550	0.3	A	A	489	32	645	605	10	666
THIRD ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE COMP. EX.	41		b-103	1.4	8	2.3	705	0.25	525	0.3	A	A	498	30	647	601	6.5	640

FIG. 9

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	BENDABILITY	WELDABILITY		PRESS PROPERTY	BACTERICIDAL PROPERTY 1	BACTERICIDAL PROPERTY 2	COLOR FASTNESS TEST 1	COLOR FASTNESS TEST 2	CORROSION RESISTANCE	NI ALLERGY RESISTANCE	WELDED PIPE (DRAWING)			WELDED PIPE (DRAWING)			
					FLATTENING TEST	COLD DRAWING								STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX f2	STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX f2	
FIRST ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE EX.	12	P2	b-1	A	A	A	A	A	A	A	A	A		531	41	749	641	16	744	
			b-2	A	A	A	A	A	A	A	A	A		509	38	702	593	13	670	
	b-3		A	A	A	A	A	A	A	A	A	A		545	36	741	667	15	767	
SECOND ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE EX.	31		b-4	A	A	A	A	A	A	A	A	A		526	49	784	642	13	725	
			b-5	A	A	A	A	A	A	A	A	A	A		549	43	785	671	15	772
	32		b-6	A	A	A	A	A	A	A	A	A	B	A		499	40	699	608	14
THIRD ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE EX.	41		b-7	A	A	A	A	A	A	A	A	A	A		566	32	747	678	11	753
			b-8	A	A	A	A	A	A	A	A	A	A		541	40	757	661	13	747
FIRST ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE COMP. EX.	12		b-101	C	B	B	B	A	A	A	B	B	C		513	21	621	621	4	646
SECOND ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE COMP. EX.	31		b-102	B	C	C	C	B	A	B	B	B	C		515	25	644	601	6	637
THIRD ALLOY ACCORDING TO PRESENT INVENTION WELDED PIPE COMP. EX.	41		b-103	C	B	B	B	A	A	A	B	B	C		522	16	606	630	2	643

FIG. 10

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	20% COLD-ROLLED MATERIAL		HOT ROLLING	HEAT TREATMENT				HOT WORKABILITY	COLD WORKABILITY	TENSILE TEST (AFTER HEAT TREATMENT)		TENSILE TEST (20% COLD-ROLLED MATERIAL)			
				AREA RATIO (%) OF β PHASES	GRAIN SIZE (μ m)		COOLING RATE IN 400°C TO 500°C (°C/sec)	MAXIMUM ACHIEVED TEMPERATURE (°C)	RETENTION TIME(h)	HEAT TREATMENT INDEX I _t			COOLING RATE IN 400°C TO 500°C (°C/SEC)	STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX f ₂	STRENGTH (N/mm ²)	ELONGATION (%)
FIRST ALLOY ACCORDING TO PRESENT INVENTION EX.	12	P3	c-1	0.0	7	2.5	705	0.3	541	2.5	A	A	481	47	707	589	20	707
			c-2	0.0	9	2.5	760	0.2	559	2.5	A	A	480	46	701	585	21	708
			c-3	0.0	16	2.5	780	0.3	616	2.5	A	A	467	48	691	571	23	702
			c-4	0.0	3	2.5	515	5	475	2.5	A	A	523	38	722	626	16	726
			c-5	0.0	5	2.5	530	5	490	2.5	A	A	517	36	703	620	14	707
			c-6	0.1	8	1.2	705	0.3	541	2.5	A	A	479	43	685	581	20	697
			c-7	0.6	7	1.2	705	0.3	541	1.2	A	B	485	36	660	591	14	674
SECOND ALLOY ACCORDING TO PRESENT INVENTION EX.	31		c-8	0.0	8	2.5	705	0.3	541	2.5	A	A	495	50	743	621	25	776
			c-9	0.0	11	2.5	760	0.2	559	2.5	A	A	482	45	699	601	21	727
			c-10	0.0	4	2.5	780	0.1	495	2.5	A	A	550	34	737	655	13	740
			c-11	0.0	15	2.5	620	15	597	2.5	A	A	465	48	688	583	21	705
			c-12	0.0	9	2.5	560	30	544	2.5	A	A	491	49	732	605	22	738
			c-13	0.0	7	2.5	560	45	547	2.5	A	A	496	51	749	619	24	768
			c-14	0.0	21	2.5	600	55	588	2.5	A	A	469	45	680	585	20	702
			c-15	0.0	8	2.5	570	5	530	2.5	A	A	490	51	740	612	23	753
			c-16	0.3	8	2.5	705	0.3	541	1.2	A	A	492	51	743	610	16	708
			c-17	0.8	5	1.2	705	0.3	541	1.2	A	B	488	35	659	605	12	678
			c-18	0.0	28	2.5	625	85	615	2.5	A	A	438	49	653	552	21	668
			c-19	0.1	7	1.2	705	0.3	541	2.5	A	B	498	49	742	625	21	756
			c-20	0.0	9	2.5	705	0.3	541	2.5	A	A	506	50	759	628	21	760
			c-21	0.1	26	2.5	760	0.3	596	2.5	A	A	452	44	651	571	20	685
THIRD ALLOY ACCORDING TO PRESENT INVENTION EX.	41		c-22	0.0	2	2.5	545	1.5	472	2.5	A	A	579	17	677	688	4.3	718
			c-23	0.1	4	2.5	560	4	515	2.5	A	A	525	40	735	651	19	775
			c-24	0.5	8	2.5	705	0.3	541	1.2	A	A	500	46	730	624	16	724
			c-25	0.0	9	2.5	705	0.3	541	2.5	A	A	512	41	722	629	19	749
			c-26	0.0	5	2.5	515	5	475	2.5	A	A	565	34	757	664	15	764
			c-27	0.0	10	2.5	525	85	515	2.5	A	A	501	47	736	625	21	756
			c-28	0.0	6	2.5	650	0.5	523	2.5	A	A	523	41	737	637	20	764
			c-29	0.5	11	2.5	750	0.2	549	1.2	A	A	524	40	734	640	16	742
			c-30	0.8	8	1.2	705	0.3	541	1.2	A	B	531	35	717	657	14	749
			c-31	0.0	25	2.5	790	0.2	589	2.5	A	A	502	51	758	614	19	731

FIG. 11

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	BENDABILITY	WELDABILITY		PRESS PROPERTY	BACTERICIDAL PROPERTY 1	BACTERICIDAL PROPERTY 2	COLOR FASTNESS TEST 1	COLOR FASTNESS TEST 2	CORROSION RESISTANCE	N! ALLERGY RESISTANCE	WELDED PIPE (DRAWING)			
					FLATTENING TEST	COLD DRAWING								STRENGTH (N/mm2)	ELONGATION (%)	TENSILE INDEX f2	
FIRST ALLOY ACCORDING TO PRESENT INVENTION EX.	12	P3	c-1	A			A	A	A	A	A	A	A				
			c-2	A			A	A	A	A	A	A					
			c-3	A			B	A	A	A	A	A					
			c-4	B			A	A	A	A	A	A					
			c-5	A			A	A	A	A	A	A					
			c-6	A			A	A	A	A	A	A					
			c-7	B			A	B	A	B	A	A					
SECOND ALLOY ACCORDING TO PRESENT INVENTION EX.	31		c-8	A			A	A	A	A	A	A	A	A			
			c-9	A			A	A	A	A	A	A					
			c-10	B			A	A	A	A	A	A					
			c-11	A			A	A	A	A	A	A					
			c-12	A			A	A	A	A	A	A					
			c-13	A			A	A	A	A	A	A					
			c-14	A			B	A	A	A	A	A					
			c-15	A			A	A	A	A	A	A					
			c-16	A			A	A	A	A	A	A					
			c-17	B			A	B	B	A	B	A					
			c-18	B			B	A	A	A	B	A					
			c-19	A			A	A	A	A	A	A					
			c-20	A			A	A	A	A	A	A	A				
THIRD ALLOY ACCORDING TO PRESENT INVENTION EX.	32		c-21	A			A	A	A	B	A	A	A	A			
			c-22	B			A	A	A	A	A	A					
			c-23	A			A	A	A	A	A	A					
			c-24	B			A	A	B	B	B	A					
			c-25	A			A	A	A	A	A	A	A				
			c-26	B			A	A	A	A	A	A					
			c-27	A			A	A	A	A	A	A					
	41		c-28	A			A	A	A	A	A	A					
			c-29	A			A	A	B	A	A	A					
			c-30	A			A	B	A	A	B	A					
			c-31	B			B	A	B	A	A	B					

FIG. 12

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	20% COLD-ROLLED MATERIAL		HOT ROLLING	HEAT TREATMENT				HOT WORKABILITY	COLD WORKABILITY	TENSILE TEST (AFTER HEAT TREATMENT)			TENSILE TEST (20% COLD-ROLLED MATERIAL)		
				AREA RATIO (%) OF β PHASES	GRAIN SIZE (μm)	COOLING RATE IN 400°C TO 500°C (°C/sec)	MAXIMUM ACHIEVED TEMPERATURE T _{max} (°C)	RETENTION TIME (min)	HEAT TREATMENT INDEX It	COOLING RATE IN 400°C TO 500°C (°C/sec)			STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX f ₂	STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX f ₂
FIRST ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	12		c-101	0.0	35	2.5	805	0.3	641	2.5	A	A	422	45	612	528	20	634
			c-102	0.0	32	2.5	705	2	641	2.5	A	B	430	44	619	534	19	635
			c-103	0.0	2	2.5	490	10	462	2.5	A	A	575	20	690	673	2.2	688
			c-104	1.2	3	0.4	680	0.3	516	2.5	A	C	470	33	625	575	10	633
			c-105	1.0	8	2.5	705	0.3	541	0.4	A	A	475	40	665	580	17	679
SECOND ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	31	P3	c-106	WROUGHT STRUCTURE		2.5	760	0.09	460	2.5	A	A	596	24	739	700	1.3	709
			c-107	0.0	31	2.5	810	0.2	609	2.5	A	A	432	45	626	555	22	677
			c-108	WROUGHT STRUCTURE		2.5	505	5	465	2.5	A	A	635	9.3	694	712	1.5	742
			c-109	WROUGHT STRUCTURE		2.5	535	1.5	462	2.5	A	A	610	25	763	725	1.0	734
			c-110	0.0	36	2.5	650	40	636	2.5	A	A	430	42	611	520	20	624
			c-111	1.0	5	0.2	705	0.3	541	2.5	A	C	505	42	717	631	15	726
			c-112	0.9	8	2.5	705	0.3	541	0.4	A	A	482	34	646	605	12	678
			c-113	0.0	1	2.5	525	2	461	2.5	A	A	572	25	715	675	2.1	689
			c-114	1.3	3	0.4	705	0.3	541	0.4	A	C	478	30	621	607	11	674
			c-115	0.0	37	2.5	745	1	655	2.5	A	A	425	45	616	553	21	669
	32		c-116	WROUGHT STRUCTURE		2.5	745	0.09	445	2.5	A	A	601	23	739	715	1.8	728
			c-117	0.0	34	2.5	625	100	616	2.5	A	A	435	46	635	549	15	631
			c-118	1.2	36	2.5	765	0.5	638	0.4	A	A	422	36	574	558	10	614
			c-119	1.2	8	0.4	705	0.3	541	2.5	A	C	495	34	663	611	13	690
			c-120	1.4	32	1.2	720	10	692	0.4	A	B	441	32	582	565	11	627
			c-121	1.0	19	0.8	680	1	590	2.5	A	C	457	39	635	580	13	655
			c-122	1.2	21	2.5	680	1	590	0.8	A	A	466	34	624	588	10	647
			c-123	1.5	17	0.8	680	1	590	0.8	A	C	463	32	611	589	10	648
			c-124	0.1	38	2.5	650	60	638	2.5	A	A	438	41	618	549	18	648
			c-125	WROUGHT STRUCTURE		2.5	490	2	426	2.5	A	A	628	8.9	684	731	2	746
THIRD ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	41		c-126	0.0	36	2.5	810	0.3	646	2.5	A	A	460	40	644	576	17	674
			c-127	WROUGHT STRUCTURE		2.5	705	0.09	405	2.5	A	A	620	12	694	732	1.5	743
			c-128	0.0	31	2.5	600	95	591	2.5	A	A	454	38	627	577	16	669
			c-129	1.5	8	0.4	705	0.3	541	0.8	A	C	495	41	698	609	13	688
			c-130	1.1	7	0.8	705	0.3	541	2.5	A	C	505	42	717	622	14	709

FIG. 13

	ALLOY NO.	PRODUCTION PROCESS	TEST NO.	BENDABILITY	WELDABILITY		PRESS PROPERTY	BACTERICIDAL PROPERTY 1	BACTERICIDAL PROPERTY 2	COLOR FASTNESS TEST 1	COLOR FASTNESS TEST 2	CORROSION RESISTANCE	N! ALLERGY RESISTANCE	WELDED PIPE (DRAWING)				
					FLATTENING TEST	COLD DRAWING								STRENGTH (N/mm ²)	ELONGATION (%)	TENSILE INDEX #2		
FIRST ALLOY ACCORDING TO PRESENT NVENTION COMP. EX.	12	P3	c-101	C			C	A	A	B	A	A						
			c-102	C			C	A	A	A	A	B	A					
			c-103	D			A	A	A	A	A	A	A					
			c-104	D			A	B	B	B	A	A	A					
			c-105	B			A	B	B	C	B	A	A					
			c-106	D			A	A	A	B	B	A	A					
			c-107	C			C	A	A	B	A	A	A					
SECOND ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	31		c-108	D			A	A	A	A	A	A	A					
			c-109	D			A	A	A	A	A	A	A					
			c-110	C			C	A	A	A	A	B	A					
			c-111	D			A	A	B	B	C	A						
			c-112	B			A	B	B	B	B	A						
			c-113	D			A	A	A	A	B	A						
			c-114	D			A	B	B	B	B	A	C					
			c-115	C			C	A	A	B	B	A						
			c-116	D			A	A	A	B	A	A						
			c-117	C			C	A	B	A	B	A						
			c-118	D			C	B	B	B	C	C						
			c-119	D			A	B	B	A	B	A						
			c-120	D			A	A	B	A	B	C						
THIRD ALLOY ACCORDING TO PRESENT INVENTION COMP. EX.	32		c-121	D			A	B	B	A	A	B	A					
			c-122	D			B	A	B	B	B	C						
			c-123	D			B	B	B	B	B	C						
			c-124	C			C	A	A	A	A	A						
			c-125	D			A	A	B	B	A	A						
			c-126	C			C	A	A	A	B	A						
			c-127	D			A	A	A	A	A	A						
	41	c-128	C			C	A	A	A	A	A	A						
		c-129	D			A	A	B	B	B	C							
		c-130	D			A	A	B	B	A	A							