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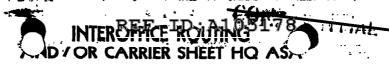
ENTER FILE CLASSIFICATION ADJUTANT . AS-80 FROM THRITE DATE SUBJECT AS-90 AS-71 6 Nav 47 Applications for Patent - SN 478,193 and SN 478,868 Inclosures 1 and 2 are forwarded for evaluation and return. The applications are currently classified confidential. The question is whether the inventions may be declassified so that patents can issue and be exploited commercially. · 3. Both disclosures relate to facsimile privacy apparatus. a. Serial Number 478,193 involves the derivation of an on-off signal from a black and white message (picture) and another on-off signal from a dummy picture. The dummy message may or may not be intelligible in itself. The two signals are added by a system of relays so that, when message and dummy signals are alike (both "ons" or both "offs"), an off signal is transmitted while two unlike currents result in the transmission of an on signal. This is, in other words, according to the so-called Vernan rule. At a receiving station, the dummy message or key is subtracted. b. Serial Number 478,868 describes a system essentially like the except that addition is accomplished by tubes instead of relays. 4. Further information about the subject applications may / necessary, from Chief, AS-72. 2 Incls S. KULLBACK, Chief Research Laboratories Di 1. Pat Appn \$N 478,193 Pat Appn SN 478.86 The Security Division has no objection to the THRU: 9 May 47 as<del>.</del> 90 declassification and release of these patent applications TO: AS-71 Iblank 2 Incls Chief, Security Division n/c Extension 241

CONFIDENTIAL
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Declassified and approved for release by NSA on 09-10-2013.

E.O. 13526

	Y	•	<u>. 4 0-5</u>	CONCIDENTIAL 70-7/1797
	TO .	FROM	DATE	Applications for Patent - SN 478, 193
3.	AS-70	AS-90	15 May	1947 and SN 478,868 (cont'd)
	·			Operations Division has no objections to the declassifying and release of these patent applications.
	2 Inc.	is	r Jacob	FRANK B. ROWLETT Chief, Operations Division
4.	AS-20	<b>A</b> 8-71	23 May 4	Woehlke for recommendations and comments regarding patent applications of William F. Friedman, serial numbers 478,193, 478,868, and 551,172, numbers 478,193 and
-	2. descrip	Certair tions of	backgrouthe inver	478,868 were circulated through AS=80 and AS=90.  nd information with respect to the two cases and brief tions thereof appear in Comment 1.
=	been cli the int subject Signal approva	esified, erested l Author Security L by the	A draft ranches a ticating Agency a	1,172 was not circulated since the application had never of the case was considered before filing; the views of nd individuals may be found in an R & W, 24 July 1944, Device, through Chief, C Branch, to Commanding Officer, and six subsequent actions, the final action being an Chief, Signal Security Agency, for the filing of an eatlon.
	with the War Depositions Subject Army Se	policy artment ( Release curity As	establisheneral Stee of Crypency. to	d that the three applications be declassified in accordance and by a memorandum for Chief, Army Security Agency, from aff, Military Intelligence Division, G-2, 29 April 1946, stographic Principles, as modified by a letter from Chief, AS-70, AS-80, and AS-90, 10 April 1947, subject: Information Concerning Secrecy Patents.
	5.	Return	of the co	pies of the applications is requested.
	2. n	/c /c at Appn s	IN 551,172	S. KUILBACK, Chief Research Laboratories Division Ext. 284
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HRU PO:	TO AS-24 AS-20	FROM AS-14	DATE  3 June	SUBJECT Applications for Patent - SN 478,193, SN 478,868, and SN551,172
5.	Invent	n view or of t	of the	fact that I am an interested party as the tents, I prefer not to go on record as either ring the declassification of these patents.
				WILLIAM F. FRIEDMAN Chief, Communications Research Ext 215
6	AS-24	AS-20	5 June 4	
				Materiel Section, Staff has no objections to the declassification of subject patents.
	3 Incl n/c	1		ARTHUR V. WHITEHEAD  Major, Signal Corps Chief, Materiel Section, Staff Ext. 216
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193 and	FROM AS-23	5 June 47	Applications for Patent - SN 478,193 and SN 478,868
193 and			
193 and		<b>\</b>	Capt. Woehlke/462
picture signal is that	478,868 signal vis employ Serial	basically ith a dur ed in the o. 478, ]	ons (Systems for Enciphering Facsimile), Serial Nos. 478, employ the Vernem rule for enciphering a black and white my black and white picture signal. The dummy picture nature of a key. The difference between the two cases 93 utilizes relays and Serial No. 478,868 employs tubes function.
rotors, A curre	a rotar; nt passi; rotors w	switch v	on, Serial No. 551,172 (Authenticating Device) employs ith a plugging arrangement, and a strip of random numbers. the predetermined connections of plugs and arrangement a lamp which will give a number which may be used as an
			ons, Serial No 478,193 and 478,868 were circulated by in accordance with current policy.
since the Agency	he applic	ation was	on, Serial No. 551,172 was not circulated at this time never classified. The Assistant Chief, Signal Security cation for filing as an unclassified patent application ure 1).
		AS-80, an ents can	d AS-90 agree that the patent applications may be declassi- issue.
6.	Recomme	end signat	ure of the attached Disposition Form.
2. P: 4'	outing & ubj: Aut atent App 78,193;		ng Device Acting Deputy Chief Serial Nos. Army Security Agency 51,172 Ext 498
ASTO	AS 10	Hum	D/F signed this date