General Hugh S. Johnson
and the
War Industries Board

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RECENT concern over the role of the military in American society has generated considerable interest in America's past experiences with wartime economic mobilization. Particular attention has been focused on World War I, for, during that struggle, America had to make major institutional adjustments to meet the insatiable demands of the fighting in France. In 1917, the military and industrial sectors were insulated from each other. The Army and the businessmen of the War Industries Board (WIB) each had their own concepts of industrial mobilization, and, for much of 1917, they struggled for domination of the supply program. This struggle raged unabated until March 1918, when President Woodrow Wilson granted the WIB and its new chairman, Bernard M. Baruch, general coordinating authority over industrial mobilization and mandated that the Army cooperate with the WIB. As a result, the Army had to share the planning and execution of the supply program with businessmen, and, although no interlocked "military-industrial complex" emerged from the war effort, never again would the military and industrial sectors be insulated from each other as they had been in 1917.

In looking at the problem of industrial mobilization during World War I, historians have generally concentrated on the role of businessmen in the WIB and the WIB's struggle with the Army. For example, Robert D. Cuff in The War Industries Board: Business-Government Relations During World War I gives us good pictures of the motives of the businessmen as well as of the development of the WIB, while Daniel R. Beaver in Newton D. Baker and the American War Effort, 1917-1919 highlights the conflict between the Army and the WIB before March 1918.¹ But no one has fully investigated the efforts to effect cooperation between the Army

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and the WIB after March 1918. To a significant degree, these efforts centered around Brigadier General Hugh S. Johnson of the War Department General Staff. Well-known in Washington because of his work with the draft, Johnson was assigned to the General Staff in March 1918 to assist in the reorganization of the languishing Army supply program. Thereafter, as a member of the General Staff and later as a member of the WIB, he played an important role in the integration of the military and industrial sectors.

On the surface, it would seem odd that Johnson would be selected for such an important role. A hard-bitten and tempestuous cavalry officer, he had never served with any of the Army supply bureaus. Most of Johnson's Army career had been spent with the 1st Cavalry in such remote places as Fort Clark, Texas, and Camp Stotsenberg in the Philippines. Outside of relief work in San Francisco during the 1906 earthquake and the chase after Villa in 1916, it had been a rather uneventful career. The turning point in Johnson's Army career came in 1914 when The Judge Advocate General, Brigadier General Enoch H. Crowder, selected him for appointment to the Judge Advocate General's Corps and dispatched him to the University of California for a law degree. This appointment brought rapid promotion from lieutenant to major and assignment to Washington in Crowder's office. During the first year of the war, Johnson served as Crowder's deputy in the planning and organization of the draft. Here, his latent organizational talents came to the fore and earned him the attention of both Secretary of War Newton D. Baker and General Peyton C. March who became Army Chief of Staff in March 1918. March determined that he would be a valuable aid in "building up the War Department into a more vigorous war machine." When Johnson entered the General Staff, he was struck by the undisguised hostility the Army exhibited toward the WIB. As he later told Grosvenor B. Clarkson, the official historian of the WIB, the Army felt that it did not need the WIB, that it was an impediment to the Army's supply program rather than an assistance, that Baruch wanted to create a ministry of munitions, and that its civilian members were motivated as much by the desire to help themselves as by any sense of duty and sacrifice. It was a hostility ingrained by decades of insularity between soldiers and businessmen and aggravated by a year's reluctance on the Army's part to accept the WIB as a partner in its supply program.

In its quest for professionalism after the Civil War, the military had rejected the spirit of commercialism and materialism that it saw at the forefront of American society during the Gilded Age. Military officers deplored the rise of businessmen to predominance in American society, feeling that businessmen were committed to advancing their self-interest at the expense of the nation. Wary of being corrupted by this "spirit of the age," advocates of military professionalism taught that the military had no choice but to isolate itself from the mainstream of society and cultivate its own moral superiority. This military preference for isolation was reinforced by the relative simplicity of Army requirements. The core of the Army before World War I was a moderate force of infantrymen whose requirements did not necessitate any elaborate relationship with the nation's industrial sector. Consequently,
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The Army made no effort to coordinate its supply programs with the productive capacity of the nation.

As the United States mobilized in 1917, it was readily apparent that the Army's isolation could not endure. The ballooning supply requirements of modern war could be met only by the systematic integration of the military and industrial sectors. Businessmen, already aware of the growing interdependence of American society, recognized this need early and, by August 1917, had organized themselves into the WIB to rationalize this integration. Their goal was:

... to create the kind of institutional order that would both effectively mobilize the nation's resources for war and protect the industrial economy's basic structure and character for peace.

An advisory agency, the WIB was to assist the military in the acquisition of war supplies and to assist industry in the conversion to war production. Most of its members assumed that:

... businessmen had the best working knowledge of the industrial side of war, and as members of the emergency bureaucracy they wanted formal authority commensurate with their newfound responsibilities. When they did not receive it they carried on in a haphazard, illegal fashion as best they could, grasping all the time for more power and wider jurisdiction.

The Army refused to accept the premise that industrial mobilization was a business proposition and should be managed by businessmen. It was dominated by "old-school" officers out of the 19th Century, officers who had yet to realize "that it was no longer possible to compartmentalize civilian and military functions" as had been the case before 1917. Inherently suspicious of businessmen because of their long isolation from the mainstream of society, these old-school officers feared that the businessmen of the WIB were attempting to usurp legitimate military domain. To the Army, it alone understood the battlefield necessity and the technical aspects of military production and must determine its own requirements and procure supplies as it saw fit. Any departure from this practice would violate the dictum that he who controls strategy must also control supply.

Even if the Army had been more amenable to cooperation with the WIB, its supply organization was incongruous with that of the WIB which followed the natural commodity lines of the nation's economy. The Army was supplied through a series of semiautonomous bureaus, each responsible for procurement of specific functional items such as ordnance supplies, quartermaster supplies and the like. Each bureau operated as a separate pro-

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curement agency with separate systems for purchase, finance, storage and distribution. There was no authoritative voice charged with establishing priorities between the bureaus or regulating interbureau competition for scarce supplies. And, to the WIB’s chagrin, no one was able to speak for the Army as a unit, thus forcing the WIB to hear from all the bureaus before it could decide policy. It may have been an economical system in peacetime, but, in 1917, it was a leftover out of America’s laissez-faire past.

The combination of the Army’s refusal to accept the WIB as a partner in mobilization and its archaic supply organization was the major contributor to the “headless riot” that marked mobilization through 1917. The Army neither consulted the WIB on the magnitude of its requirements nor did it systematically utilize the WIB to locate sources of supply. Contracts were placed indiscriminately; supplies needed by other departments hoarded; and manufacturing, storage and transportation facilities sequestered without direction. The bureaus overestimated the requirements for some programs and attempted to satisfy these by creating new facilities rather than converting existing facilities. In the process, they tied up valuable production capacity and threatened the immediate transition to war and the eventual transition to peace.10

By the end of 1917, the war effort was reaching the crisis stage, and relations between the Army and the WIB were deteriorating into open hostility. Businessmen, led by Baruch, demanded that all procurement responsibilities be separated from the military and be vested in a business-dominated ministry of munitions. The Army was adamantly opposed to these proposals and attempted to head off the WIB by reforming itself internally. But its reforms were not sufficient to forestall an upgrading of the WIB. In March 1918, Baruch was named chairman of the WIB and given general coordinating authority over industrial mobilization, thereby terminating the Army’s independence in the market. The Army was able to preserve internal control of its supply, and, to a great degree, the WIB’s effectiveness would depend upon the establishment of harmony between the WIB and the Army and the process of bureaucratization.11

In March 1918, Johnson shared the prevailing Army hostility toward the WIB, presupposing that it was an “obnoxious civilian interference.” He had given little thought to the WIB’s role before his assignment to the General Staff and had not questioned the Army’s verdict. But, whereas the opinion of many of his fellow officers was rooted in a deep-seated suspicion of the civilians of the WIB, Johnson’s was superficial. He had grown accustomed to working closely with civilians during his tenure in Crowder’s office and had gained respect for their efforts. He also had come to realize that many traditional attitudes and practices were outdated. The draft was based on a program of far-reaching cooperation between the civilian and military sectors and taught Johnson that mobilization for total war was inextricably intertwined with all of the nation’s institutions. Once exposed to the reality of the situation and the civilians of the WIB, his initial distaste for the WIB rapidly melted.12

Johnson’s introduction to the reality of the situation began immediately. On 2 April, he was named a member of an ad hoc committee, dubbed the
Committee of Three, charged with developing a functional organization for the embryonic Purchase and Supplies Division of the General Staff. Formed in December 1917 to supervise bureau procurement and to represent the Army before the WIB, the division had lain dormant because of infighting and lack of direction. Johnson was appointed to the Committee of Three because of his knowledge of War Department organization and his organizational expertise. For two weeks, he and the other members of the committee were engrossed in charting the necessary organization for the division. In the process, Johnson gained a crash course in the bankruptcy of the Army’s bureau supply system which confirmed doubts he had harbored about its efficiency. Johnson, who had begun to question the bureau system as early as the summer of 1917 when several bureaus glibly claimed that they could furnish supplies at the same pace as the draft furnished men. Events soon proved them wrong, resulting in shortages of equipment in training camps and postponed draft calls. Johnson’s first-hand knowledge of conditions at Camp Upton, New York, added to his initial doubts, as did the Senate Military Affairs Committee’s investigation of the War Department. By the time his work with the Committee of Three was completed, Johnson was convinced that the nucleus of the supply problem was the faulty organization of the War Department and that centralized direction of the bureaus by the Purchase and Supplies Division was the only remedy. The concomitant to centralized direction of the bureaus was improved Army relations with the WIB. Johnson quickly appreciated the need for unitary contact with the WIB, a point the Committee of Three emphasized in the strongest terms. And, if reality dictated that the Purchase and Supplies Division must supervise the bureaus, it soon would become clear to Johnson that the Army must also cooperate fully with the WIB if mobilization was to succeed.
The Committee of Three completed its report on 16 April. On the same day, March reshuffled the Army supply organization as part of his program of asserting the power of the General Staff within the Army. He created the Purchase, Storage and Traffic Division in the General Staff and designated Major General George W. Goethals, his longtime friend, to head this "somewhat unwieldy" creation. The forthright Goethals was given "complete charge of all matters of supply" for the Army from the point of production to France. Under this arrangement, the Purchase and Supplies Division became the Purchase and Supply Branch of Goethals' division, and its head, Brigadier General Palmer E. Pierce, was ordered out of the War Department. March then named Johnson as Pierce's successor over Johnson's heated complaints that he knew nothing about industry and that he wanted to go to France instead. As Director of Purchase and Supply, Johnson was now responsible for supervising the Army's vast procurement programs and integrating them with industry.

Pierce stayed on as the principal Army representative on the WIB until early May when he was dispatched to France. Goethals was Pierce's logical replacement. But the famous "canal builder" ruled himself out, considering himself totally unfit for that job. An old-school officer, Goethals was temperamentally unable to work with the civilians of the emergency war agencies except in a superior position. In 1917, as General Manager of the Emergency Fleet Corporation, Goethals had openly feuded with William Denman, the civilian head of the Shipping Board. He left the fleet after a few short months, firing the barb that he regarded "all boards as long, narrow, and wooden." Once he entered the War Department in December 1917, Goethals was soon feuding with Baruch as well. By May, they had clashed twice, and relations between the two had degenerated into bitter animosity. George N. Peek, Commissioner of Finished Products for the WIB, suggested that Johnson would be an acceptable representative. Peek had met Johnson only once, but he knew of Johnson's work with the draft through Crowder. Thus, on 14 May, Baker designated Johnson, now a brigadier general, to be the principal Army representative on the WIB where he primarily served as Goethals' spokesman.

In recalling the hostility that had permeated Army-WIB relations, Baruch wrote: "When General Hugh Johnson began to sit in for Goethals, things improved considerably—as they always did where Johnson was involved. To a degree, Baruch's assertions was an overstatement, embellished by two decades of friendship with Johnson. Yet Johnson's presence on the WIB did lead to an improvement in relations if for no other reason than Johnson and Baruch gravitated toward each other from their first encounter. The irrepressible "Wolf of Wall Street" was captivated by Johnson's infectious personality and colorful language, a marked contrast to the acerbity of Goethals. With Johnson sitting on the WIB, the personality conflicts that had marred relations between the Army and the WIB subsided. Baruch also appreciated the substance beneath Johnson's bluster, and, as their work brought them closer, he drew Johnson into his entourage. Peek likewise was impressed with Johnson, and, as Peek later recounted, relations between the two were quite close. Johnson had re-
sponsibility for the Army's vast business while Peek was in charge of seeing that military requirements did not needlessly interfere with civilian necessities, and both had to be considered together. 24 Peek saw in Johnson the potential for an outstanding business partner. 25

Johnson was flattered by the attention of Baruch and Peek. Although he was not a sycophant, Johnson reveled in being at the center of events and at the right hand of influential men, a position he had held for a year as Crowder's deputy in the draft. It fed his ego and helped him swallow the disappointment of being deskbound in Washington. But Johnson was an outsider with March and Goethals; he personally began to feel more at home with Baruch and Peek, considering them his warm friends and trusted confidants. These friendships, when coupled with a growing estrangement from March, smoothed Johnson's conversion to the principles of the WIB. The reality of the situation and his growing intimacy with Baruch and Peek soon convinced Johnson that the WIB, instead of threatening Army prerogatives, actually would serve them by helping the War Department fulfill its responsibility of supplying the Army in France. By cooperating with the WIB in satisfying its requirements, the Army could ensure that the facilities would be in place to meet its requirements and that supply would be synchronized with demand. Johnson devoted his energies to seeing that the bureaus utilized the WIB to meet the Army's requirements. At the same time, he struggled to educate his fellow officers that the "purpose" of the WIB was "to line up industry and put the country behind the Army." 26

Johnson thought his "first job" was to furnish the WIB with a "statement of gross requirements." Such a statement was essential if the WIB was to coordinate Government procurement and "provide for the long-range program of raw materials and facilities." 27 Yet Johnson found in April 1918 that the Army had yet to provide the WIB with such a statement despite the WIB's repeated requests and, moreover, that every bureau was making purchases on a different schedule with none of them being based on the approved Army program. This was the result of bureaucratic bungling within the Army and the fluctuating conditions in France which made it difficult to settle on an Army program. The initial Army program, based on 30 divisions in France by the end of 1918, had been adopted in October 1917, but was not officially transmitted to the bureaus until the following February. In March 1918, the program was expanded to meet the threat presented by the latest German offensives; however, no notice was given the bureaus of the magnitude of the new Army program. This bred uncertainty over the proper strength tables on which to compute requirements and different constructions of the Army program. 28

By the last week of April, Johnson was growing increasingly apprehensive over the delay in issuing the new official Army program. The determination and issuance of the program were outside Johnson's responsibility, but, without the program, he had no guide on which to have requirements computed for the WIB. He, therefore, decided to prod March to issue the new program, and, in a candid memorandum, he argued forcefully for the "immediate determination of the military program not only for the balance of 1918, but for 1919." He emphasized that, unless this was done soon, there
would not be time for the WIB "to create additional facilities to provide the necessary supplies." March came upon the memorandum while it still was in the formative stage. He was incensed by what he considered Johnson's impertinence and castigated him for his attempt at "running the Army." Even more than Goethals, March was a "soldier of the old school who did little, at first, to hide his low opinion of the WIB." March instinctively resisted any extraneous control or influence over the War Department and already had crossed Baruch over the WIB's priority power. Instead of regarding Johnson's proposal as a necessary element of military planning in the 20th Century, March simply branded it an impertinent proposal from an overzealous subordinate. The whole affair left Johnson discouraged for some time, and, in the process, he perturbed his associates with his pouting. Johnson could not understand why March was so incensed and was convinced that he had failed to persuade March that studies such as his were necessary. Thereafter, relations between Johnson and March deteriorated so that, by the war's end, they were spiteful antagonists.

On 30 April, the revised Army program was officially announced, but it did not provide the projected program Johnson felt was so vitally necessary. Based on the continuation of troop shipments to France until 42 divisions were there by July 1919 and 54 divisions by the end of that year, it was soon outdated. Following extended negotiations with the Allies and a British agreement to provide substantial shipping tonnage, American troop shipments were nearly trebled in the late spring and early summer of 1918. During these months, shipments averaged 200,000 men more than had been projected under the 30 and 54-division programs. As Johnson later criticized, neither the Army supply bureaus nor the WIB was officially informed of the change in the 54-division program. Certainly, everybody knew that there had been an increase in troop shipments, and, in such a fluid manpower-shipping situation, it was difficult to lay down a fixed program. Yet these do not excuse the failure of both March and Goethals to make future requirements more explicit. The bureaus had no meaningful program on which to base requirements but the outdated 54-division program, and, when Johnson was vigorously queried at a WIB meeting on 17 May about future Army requirements, he could only reply that he:

... would not bet on any one of the statements of requirements to any great precision, but I know some big facts that make me feel just as sure as I am sitting here that the requirements are going to be boosted from this time forward.

While awaiting the issuance of the new Army program, Johnson set about to supervise the computation of bureau requirements. It was a trying task, taking over two months just to devise forms for the reporting of requirements and to develop an office organization to compile and analyze them. Even more exasperating were his efforts to standardize requirements. Only the Quartermaster Corps and the Ordnance Department had specific sections to compute requirements, and, more often than not, the bureaus did not submit their requirements in any standard classification. To standardize requirements, Johnson, in late July, ordered each bureau to establish a separate requirements section to compute requirements and to report them in uniform terms. When the
Major General George W. Goethals, longtime friend of General Johnson, was placed in charge of supply matters for the Army.

On 26 June 1917, the first American troops arrive at Saint-Nazaire, France.

A convoy of transports en route to Europe. During the late spring and early summer months of 1918, American troop shipments to France averaged 200,000 men more than had been projected.
new Army program was finally issued on 25 July, based on 80 divisions in France by July 1919, Johnson felt confident in writing Peek that he had: 

... organized to get a very prompt restatement of Requirements ... [and that] they will come rolling into the War Industries Board within the next two or three weeks with startling results. 35

Thereafter, regular requirements schedules for approximately 2700 articles were received from the Ordnance Department, the Quartermaster Corps, the Signal Corps, the Surgeon General's Office, the Chemical Warfare Service and the Motor Transport Corps. Although a gross statement of Army requirements based on the enlarged Army program never was completed, by the time of the armistice, computations "as a whole had been placed upon a solid and systematic basis." 36

Providing the WIB with requirements statements was only one phase of Johnson's efforts to effect cooperation between the Army and the WIB. He also had to shape the War Department supply organization to interact with the myriad of divisions, committees, boards and sections of the WIB. The problem here was the "hydrhead" nature of Army contact with the WIB. During the "headless riot" of 1917, no one spoke for the Army as a unit before the WIB. Each bureau pressed its own claims for clearance and priority, forcing the WIB to rule on conflicting Army requests. To end this confusion, Johnson commanded the bureaus to submit all clearance and priority requests through his office and prohibited them from initiating contract negotiations until clearance was received. Furthermore, Johnson supervised the establishment of clearance and priority systems within the Army so that conflicting interbureau requests were resolved internally, thereby answering the WIB's demand for "concerted presentation of such matters." 37

Most of Johnson's attention was devoted to tying in Army supply with the commodity organization of the WIB. Developed after Wilson's upgrading of the WIB, it consisted of a series of sections for materials in which shortages either existed or were threatened. Each was designed to serve as a "clearing house for information" for a specific industry—wood, chemicals, rubber, hardware and the like. They were staffed by industrialists who were considered the strongest men in that industry and representatives of the interested government purchasing agencies. In actuality, these sections "determined policy for an administered" industry and were the "backbone" of the WIB. 38 But, as Johnson later pointed out, the Army, with its functional organization, was not prepared to operate in terms of commodities. In the case of woolen goods, for example, several Army supply bureaus were buying without relation to the needs of each other or to the nation's requirements for woolen goods. Coordination between the chiefs of these bureaus was impossible because woolen goods were only one of the many commodities they were buying. If the Army's demand for woolen goods was to be measured against the nation's supply, these bureaus would have to be brought together. The Army had to shape itself so that it could respond to the situation with commodities. 39

The need for commodity sections in the War Department paralleling those of the WIB had been emphasized in the deliberations surrounding the WIB's reorganization in March 1918.
But nothing of substance had been accomplished before Johnson became Director of Purchase and Supply in mid-April. Within three days of his appointment, Johnson presided over meetings of bureau representatives and directed them to organize into commodity committees and to select a member to represent the Army as a whole on all matters before the corresponding commodity section of the WIB. By 25 April, Johnson was able to inform Baruch that 25 such committees had been formed in the War Department, and, by November 1918, 37 were at work. He advised the bureaus that hereafter they should approach industry only through the commodity committee-section arrangement. In this way, they could "obtain suggestions" where best to place their orders to ensure speedy delivery and assist the WIB in its efforts to obtain "a scientific and common sense distribution of business."

The commodity arrangement did not perform as Johnson intended. Many of the bureau officers serving on the Army commodity committees were not committed to full cooperation with the WIB. Often, they passed up pertinent meetings of the WIB's commodity sections, forcing Johnson to cajole them into attending commodity section meetings and to lecture them on the role of the WIB. Such admonishments proved to be of no avail, for most Army commodity representatives resented the fact that the paramount source of authority in each commodity section of the WIB was always a civilian. The section chief had been given this authority to allay the fear of the civilian commodity representatives that the Army would completely dominate the section. But this action served only to frustrate the design of the commodity arrangement. Demand and supply were to sit at the same table and hash out their problems, yet many of the civilian section chiefs, anxious to "reduce the military's area of discretion," acted without consulting the Army representatives. Their arbitrary stance magnified the ingrained military distrust of civilians, leading the Army representatives to avoid rather than seek contact with the WIB. The situation became so serious by August that Johnson complained to Peek that:

"... examination of the records indicate that the general statement that the Sections do not meet and conduct business as such, is justified in respect for a majority of cases."

Johnson responded with a twofold attack. He implored Peek to instruct the WIB's commodity chiefs to accord the Army representatives every opportunity to participate in the deliberations of their respective sections, and, upon Johnson's plea, the entire section was clearly endowed with the source of authority. Equally important, Johnson warned the Army's commodity representatives to assert themselves before the WIB's sections and restated their responsibilities in Supply Bulletin Number 22 which was issued 28 August 1918. He urged the Army commodity representatives to consider themselves "as much a part of the... [WIB] as the officers of the War Industries Board themselves" and outlined his view of effective military-industrial relations in modern war. Johnson reminded the Army commodity representatives:

"... that the duty of the War Department is not performed by a mere submission of our needs and requirements to the War Industries Board. Our officers must participate in all deliberations and plans for the fulfill-
ment of these requirements, bringing to the knowledge of the industrial fabric that is found among civilian members of the board the technical knowledge of material, the experience of war purchase, and the relative urgency of the military demand that is found only in our organization. Action by those units resulting from the deliberations should be the joint and reasoned action of our representatives and the civilian and other representatives thereon. . . . We should consider it quite as much our function and duty as that of the War Industries Board to carry into effect the President's orders relating to the conversion of industry, the creation of new facilities, and the relief of congested districts. We should regard and constantly use the board and all its sections as our powerful help and auxiliary in carrying forward the Army program and never as in opposition or hindrance of that program. 47

After the issuance of Supply Bulletin Number 22, the perfunctory nature of Army contact with the WIB's commodity organization improved dramatically. A new spirit of cooperation on the part of the Army representatives was evident, and the commodity arrangement began to function as the efficient channel between the military and industrial sectors that Johnson had intended. 46 More than any other development, the organization and maturation of the commodity arrangement, under Johnson's watchful eye, symbolized the intertwining of the military and industrial sectors brought on by the war. It was Johnson's most important contribution to industrial mobilization, and, in 1919, even an old-school officer like Peyton March could endorse the following recommendation in the General Staff's annual report:

If the United States should ever again be involved in a war comparable in magnitude with the recent war, one of the first steps which would need to be taken would be the reconstitution of a set of commodity committees. . . . This should be done in any event whether or not an organization similar to that of the War Industries Board is to be created. 47

In early October 1918, Johnson was relieved from the General Staff and given the command of an infantry brigade under orders for shipment to France. By this time, however, his efforts to effect Army-WIB cooperation were largely concluded. Almost from the outset of his exposure to the WIB, Johnson had recognized the need for the Army to integrate its supply program with the industrial sector through the WIB. He had organized to provide the WIB with statements of Army requirements and had shaped his office so that the Army could "head in" with the organization of the WIB. By September, the organizational phase was concluded, enabling the WIB to get a grip on industrial mobilization. In addition, Johnson had instilled a new vitality in Army relations with the WIB that was manifest in the increased spirit of cooperation in the commodity sections. 48 He had chastised Army commodity representatives for avoiding contact with the WIB and, at the same time, guarded against WIB control of the commodity arrangement. After months of wrangling, the military and industrial sectors were finally integrated to put American industry behind "a massive military program."

When the WIB dissolved at the war's end, the nation had yet to finalize a standard doctrine for integrating the military and industrial sectors. Such old-school officers as March and
Goethals still had not accepted businessmen as full-fledged partners with the Army in industrial mobilization, while many businessmen still wanted to divorce procurement responsibilities from the Army. But the need for more interdependent relations between the military and industrial sectors was now evident to all. In the National Defense Act of 1920, Congress partially recognized this need by charging the Assistant Secretary of War with supervision of Army procurement and planning for industrial mobilization, with the implicit understanding that he should have a background of wide industrial experience. Moreover, with the founding of the Army Industrial College in the early 1920s, businessmen and soldiers had an ongoing forum where they might jointly consider the multifarious problems inherent in industrial mobilization. Johnson himself left the Army in early 1919 to enter private business, and, in 1933, he gained national prominence as the colorful and controversial head of the National Recovery Administration in the Roosevelt New Deal. Nevertheless, his concern with wartime industrial mobilization did not abate, and, throughout the interwar period, Johnson was a fervent spokesman for ongoing military-industrial planning in numerous articles and lectures.

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NOTES

2 For biographical information on Johnson's career before the war, see Hugh S. Johnson, The Blue Eagle From Egg to Earth, Doubleday, Doran & Co., Garden City, N. Y., 1935, pp 1-72.
7 Cuff, op. cit., pp 3 and 165.
9 Johnson, op. cit., p 94.
12 Clarkson, op. cit., p 131.
13 Annual Report of the Assistant Chief of Staff, Director of Purchase, Storage and Traffic Division, for Year Ending June 30, 1919, National Archives, RG 165, Purchase, Storage and Traffic Division, Box Number 36, p 26.